

**INSTALLATION RESTORATION
PROGRAM
TECHINICAL MEMORANDUM FOR
FIELD INVESTIGATION AT
IRP SITES NO. 1 AND NO. 2
VOLUME II
APPENDICES A-J
183rd FIGHTER WING
ILLINOIS AIR NATIONAL GUARD
CAPITAL MUNICIPAL AIRPORT
SPRINGFIELD, ILLINOIS
JUNE 1997**



19970916 139

DTIC QUALITY INSPECTED 2

Prepared For
**ANG/CEVR
ANDREWS AFB, MARYLAND**

REPORT DOCUMENTATION PAGE

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6. AUTHOR(S) Operational Technologies Corporation					
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Operational Technologies Corporation, 4100 N.W. Loop 410, Suite 230, San Antonio, TX 78229- 4253				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) ANG/CEVR 3500 Fetchet Ave Andrews AFB MD 20762- 5157				10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
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12a. DISTRIBUTION/AVAILABILITY STATEMENT unlimited distribution				12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 Words) The Installation Restoration Program was initiated by the Air National Guard (ANG) to evaluate potential contamination to the environment caused by past practices at its installations. Two sites were identified at Capital Municipal Airport during the 1990 Preliminary Assessment; the Petroleum, Oils and Lubricants Storage Area (Site 1) and the Old Fire Training Area (Site 2). Information gathered during a 1996 Site Investigation on both sites and 1995 Site Investigation Addendum for Site 2 did not provide adequate information for decision-making. This Field Investigation was designed to fill data gaps. The Tech Memo recommends Site 1 proceed to a No Further Action Decision Document, and Site 2 proceed to an Engineering Evaluation/Cost Analysis (EE/CA). No further field effort is necessary to complete the EE/CA. Vol 1 contains the main text of the report. Vol 2 contains the supporting data.					
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Prepared By

**Operational Technologies Corporation
4100 N.W. Loop 410, Suite 230
San Antonio, Texas 78229-4253
(210) 731-0000**

APPENDIX A
FIELD DOCUMENTATION

1342-6486-1



"Life in the Rain"
ALL-WEATHER WRITING PAPER

599-6353

Kathryn Pritchett

Operational Technologies Corp.

Name

Address

Phone

1-800-677-8072

Prepaid

Capital EE/CA
1315-269/44

"Life in the Rain" - a unique all-weather writing surface created to hold your and to enhance the written message. Makes it possible to write sharp, legible field data in any kind of weather.

a product of

J.L. DARRIG CORPORATION
TACOMA, WA 98401-3693 USA

IF YOU KNOW

MULTIPLY BY

TO FIND

LENGTH

inches	2.540	centimeters
feet	30.480	centimeters
yards	0.914	meters
miles	1.609	kilometers
millimeters	0.039	inches
centimeters	0.393	inches
meters	3.280	feet
kilometers	1.093	miles
	0.621	miles

WEIGHT

ounces	28.350	grams
pounds	0.453	kilograms
grams	0.035	ounces
kilograms	2.204	pounds

VOLUME

fluid ounces	29.573	milliliters
pints	0.473	liters
quarts	0.946	liters
gallons (U.S.)	3.785	liters
milliliters	0.033	fluid ounces
liters	1.056	quarts
	0.264	gallons (U.S.)

TEMPERATURE

$$^{\circ}\text{C} = (^{\circ}\text{F} - 32) \times .555$$

$$^{\circ}\text{F} = (^{\circ}\text{C} \times 1.8) + 32$$

Inches	Decimals of foot	Milli-meters
1/16	.0052	1.5875
1/8	.0104	3.1750
3/16	.0156	4.7625
1/4	.0208	6.3500
5/16	.0260	7.9350
3/8	.0313	9.5250
1/2	.0417	12.700
5/8	.0521	15.875
3/4	.0625	19.050
7/8	.0729	22.225
1"	.0833	25.400
2"	.1667	50.800
3"	.2500	76.200
4"	.3333	101.60
5"	.4167	127.00
6"	.5000	152.40
7"	.5833	177.80
8"	.6667	203.20
9"	.7500	228.60
10"	.8333	254.00
11"	.9167	279.40
1 foot	1.0000	304.80

1314) 945-2624

CONTENTS

PAGE	REFERENCE	DATE
	Lt. Deborah Hamrick	Hamrick
	Environmental Coordinator	
	(217) 757-1361 (255) Fax	
	Tim Franke - Chief of	
	Public Safety	
	(217) 788-1080	
	Eric Frankel - Facility Manager	
	(217) 788-1060	
	JULIE 1-800-892-0123	
	Optech Cell Phone	
	(210)	
GeoTech	Harmon Engineer Dan	
Analysia	(217) 788-2450	
Drillone	Hart Environmental Terry Hatt	
	(314)	
Analysia	NYTEST	
Lab	(516) 625-5500	X512
	Public Safety for Decker	
	(516) 867-6239	
Sharon		
Greil	98-278-8512	

10 weather Tuesday

weather: Sunny, mid 30's.
0600 Meet - for Syd, for breakfast & pre-mob meeting

0700 Depart Hotel

0725 Arrived at the 183rd PW-ILANs to meet Lt. Deborah

Hamrick

0745 Arrived at Capital Airport Public Safety for training to obtain ID (for access to the area near the Charlie Ruff).

Trainer Mike Buchele

0900 Called JULIE 1-800-892-0123

Ticket # 3450375 1/8 hrs - will

set up by 1500 today.

0905 Eric Frankel - Facility Manager

and Lt. Deborah Hamrick at

Public Safety. Per Eric Frankel, need

to contact CWLP (City Water, Light, &

Power) - electric line at CILCO

(Central Illinois Co.) for gas to

work over locations.

950 Per Lt. Deborah Hamrick, Capt

Cable called to notify clearance.

th. 2-1st

(4)

1/5/10/96

1/6/10/96

(3)

955 Called. CILCO - will meet at 15 mins. - PD
1000 Called. CWLP - will meet at 30 mins.
1023 Per Joe Augustitis (#490), clean with gas - CILCO
1025 Per Fred Groves (#214) - clean with water - CWLP
1045 Per Mike Brownlow (#114) - clean with electric - CWLP
1210 Called Ameritech pager 527-7539 - left message telephone - PD
1215 Returned call - will meet at 1400 - Ameritech - PD
1400 - Sandy Rader - Ameritech (telephone) - She will make TOK if cleared
1420 Ordered 5 barricades with flags from Warring Liter off Coy Illinois 525-0190 flags 250 each → \$12.00 bag \$40.00 for barricades. They will drop them off before noon tomorrow at the Public Safety Bldg. - direct.

- need to call tomorrow to provide Mastercard #. - PD
1500 - Sandy Rader with Ameritech called to approve clearance of location
1525 Called Hayes 1-800-352-0453 to order another explosionator
The explosionator (MX 241) that was sent did not work properly - very ~~erratic~~ readings; the alarm would not cease, would not calibrate properly, and the charger was not working either. Talked to Carol Flory, Authorization return # 216666. They will ship a MX 251 for am delivery.

1/6/32 Depart base.

PD

K. J. Rader

1130

Drillers are filling water tank on trailer (plastic tank - clean) with potable water source located on south side of Hanger A near Charlie Ramp

1230

Return to base to load tables & pick up explosives at

1255

receiving from HAZCO
MV251 9101058-142
Industrial Scientific
Pentons - 50% LEL

1305

Lot # 47176 HAZCO
Arrived at Site 2 -
(Max Timmer)

on site

1315

Started decontaminating
tanks, chilling, other equipment
by the following procedure:
Steam clean with potable water
(Completed decontamination)

1355

Drill rig moved to

1400

Mar 2018
Health & Safety Meeting

W. L. K. K. K.

1415

Jerry Castillo on site

1507

Started drilling

1508

0-2' interval

1520

5-7' interval

1540

10-12' interval

6-7 GeoTech samples
10.5-12.0
2/16/15 Report site
1630 Jerry Castillo called
Hayco about rig (for guaranteed sampling) - need to return because it is the wrong size. Reorder - the proper size. Authorization # 81169
to return.

1725

Shipped explosion meter & rig to Hayco - 2682455952 bill recipient Airbill # 2 boxes - authorization # 81169

1745

Arrived at hotel

Kathy Pickett

(8)

12/12/70

Thursday

Weather; 40's rain predicted

545 Depart hotel

630 Arrived at base

650 GattRP Calibrated PID

As per procedure stated on
page 5 of this field logbook.
Calibrated explosion meter as

per procedure stated on page 6
of this logbook.

705 Arrived on Site 2 -

MW 201B location to set up
Note: Stainless steel, split -

spoon samplers were discontaminated
by the following potRP procedure;
• scrubbed with a stiff brush
using Alconox™ and potable
water mixture.

• rinsed with potable water
• rinsed with DI water (ASTM
Type II)
• rinsed with pesticide-grade
methanol.

• allowed to air dry.

Pre-cleaned brass liner (new)

we used (ish) DI water and

(7)

745 Health & Safety meeting

Hart (Max Tinnin

Enviro. Mike Umplatt

Optec (Jerry Castillo
(Kathryn Parituck +

755 Started drilling

Auger down to 15' BLS

756 15-17' interval 0 ppm

805 Auger to 20'

788/0 20-22' interval 0.5 ppm

815 Auger to 25' - difficult

drilling P 26.5' 0.3 ppm

825 25-27' interval - refusal

842 Auger refusal - weathered

shaly ls - grey (1042.5 ft)

TD 26.5' BLS.

WL. 17.4' BLS.

PVC Schedule 40 riser 10' 0.5"

4 screen 0.25' slot 10' 4" cap

23' riser 30-26 → 4 sticky

10' screen 70' TD well

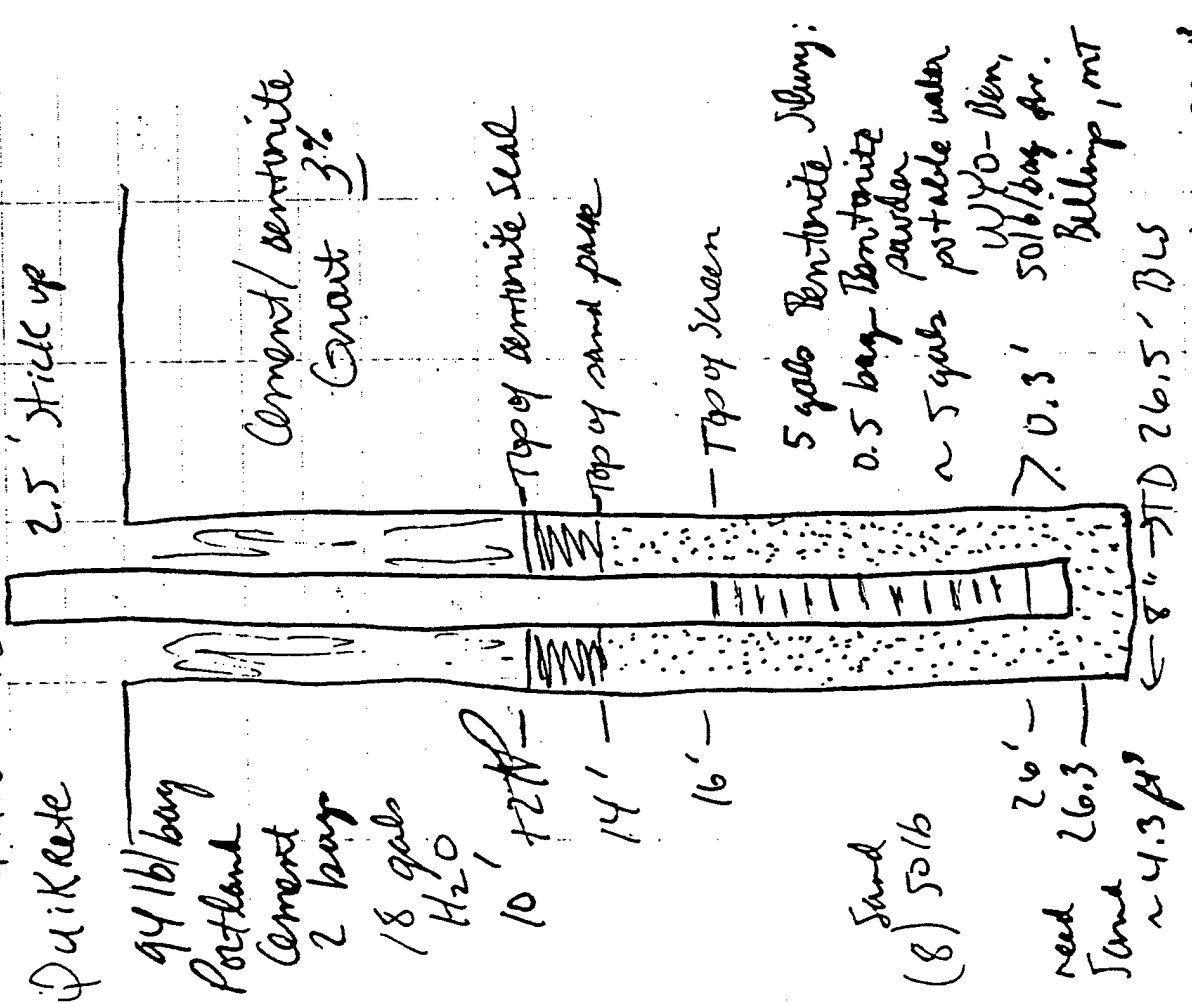
Moist Filtration media

coarse sand - 20/40 grade

50 lb bags

millville NJ 08222

(3) 4" bumper post
 MW 201B



$$Vol_{BH} = V_8'' - V_2'' \text{ (per ft.)} = 0.33 \text{ ft}^3$$

$$V_8'' = \pi (0.33 \text{ ft})^2 = 0.35 \text{ ft}^3 \text{ (per ft.)}$$

$$V_2'' = \pi (0.083 \text{ ft})^2 = 0.02 \text{ ft}^3 \text{ (per ft.)}$$

~1/55 Completed monitor well construction
 - also surface completion except pad & painting post.
 1200 off Started decontaminating drill
 1230 rig, augers, & other equipment washed by steam cleaning.
 1155- moved soil cuttings drums to decon area.
 1230 Soil Samples collected for GC field screening mws 201B

12/11/96 { 0-2' APP 5-7'
 10-12'
 12/12/96 { 15-17'
 20-22'
 23-26.5'

Confirmation Samples
 12/11/96 0-0.5 VOC (8240)
 PPM (6010/700)

Geotechnical Samples
 12/11/96 6-7'
 10-12.5' 10.5-12.0
 12/12/96 15-17' 15.5-17
 1350 Finished decontaminating.
 Kathy Patterson

12/12/196

(12)

Moved to MW 2020

0-2' interval 0.5 ppm

(12) 2"x6" GC (8240) 0-0.5' Dup.
brass sleeves (6010/7000) Dup.
1415 Auger to 5'

5-7' interval 9.4 ppm

(13) 2"x6" GC 5.5-7' Dup.
brass sleeves XP pattern
1425

10-12 interval 0.1 ppm

(13) 2"x6" GC 10.5-12' XP
brass sleeves

1435 wet 15-17' interval 0.1 ppm

GC 20-22' interval 14.13 ppm
w.h. ~ 12.73 ppm

GC 21.5 refusal at 21.5'

1515 25-26' interval 0.1 ppm
weathered shaly ls

Auger refusal 25.9'
water rise in hole ~ 14' BLS.

1555 Deposit Site 2

1630 Contact Agency Burger with

12/12/196

(12)

Burger Engineering to set up a date & time to meet the surveyor next week. She refers me to Gary Cartwright (Chief Surveyor). He plans to meet us at 0830 at the Charlie Burger area on Monday. He needs information from past surveying of the existing monitor well & site. I told him that I would research the information from the SI Report (Site 2) and pass it on to him by tomorrow afternoon. Depart base.

170

Weather: High 20's; highs expected
 in the mid 40's; sunny
 615 Depart hotel
 725 Arrived at base
 730 Arrived at Site 2

Health & Safety meeting
 max Timmer
 Mike Campbell
 Kathy Pittsall

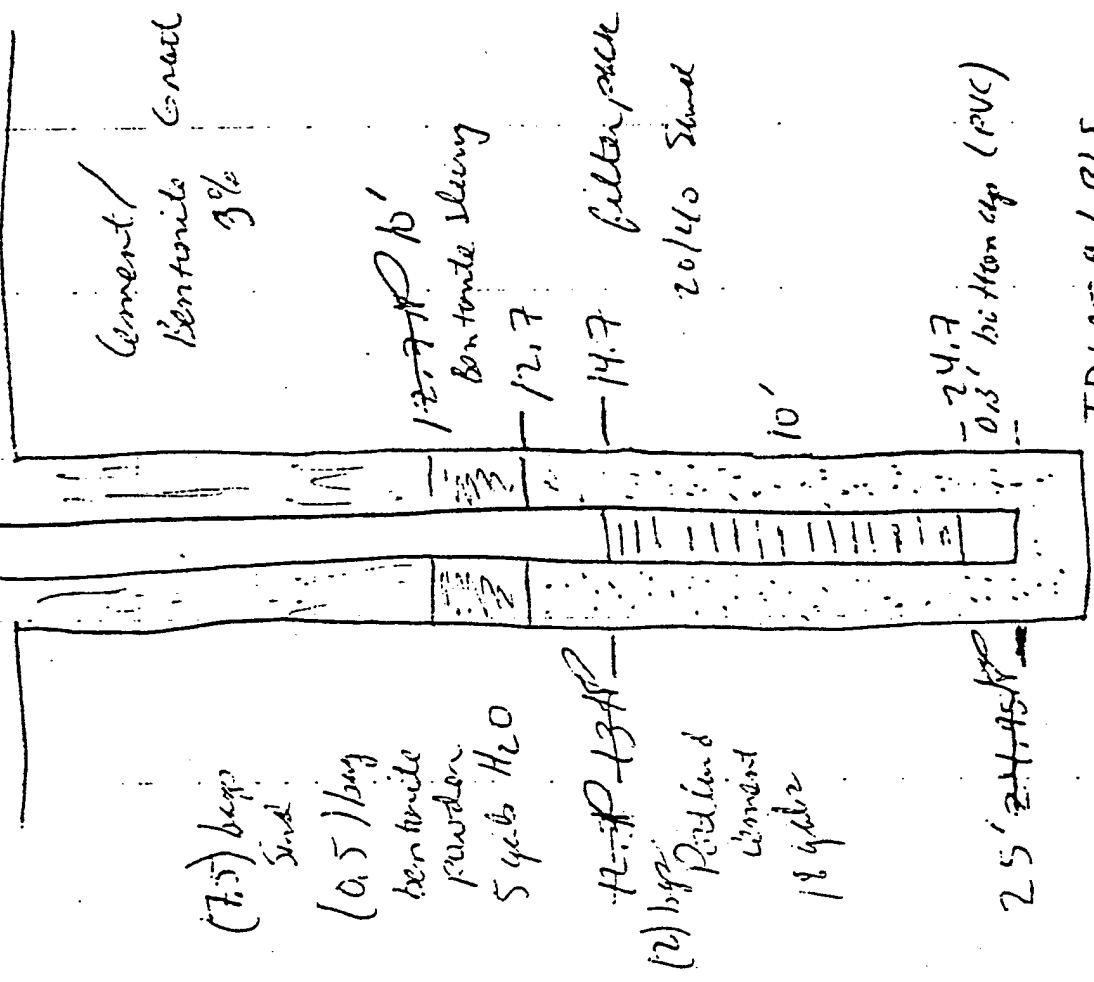
W.L. 7.1' BLS
 MW202B

Screened interval
~~15.5 - 25.5~~
 15 - 25'

Total 30.5'
 12) 10.05' using PVC schedule
 (1) 10.4' screen, 0.01" slot 40
 includes 0.71" bottom cap
 0.3

Schedule 40 PVC
 2" X 10' 0.01" slot - screen
 Campbell MonoFlex
 1-800-257-5183
 Flare threaded
 Envis - wrapped

800 MW202B
 } 2.5' sticky



TD: 25.9' BLS

✓
 Kathy Pittsall

(16)

1/11/14

830

Collected equipment removable
2-ROF from the stainless-
steel, split spoon.

2-ROF

(3) 40-ml WA H₂O VOC (8010/2020)
(1) 500-ml poly HNO₃ metals-PPMs (6010/4000)

Supplies - bottles

103 40-ml HCL WA (VOCs)
68 500-ml HNO₃ poly (PPMs)

910 - Contacted My Gentry (NPTST
told P. Wichita, KS office to
confirm that (3) 40-ml WA for
VOCs as (1) 500-ml poly HNO₃
for PPMs. (2) 2" x 6' brass
sleeves needed (soil) for WC
& PPMs - that will cover the

MS/MSD & duplicate. Confirmed
address for shipment and that
we will be shipping samples today.
Called NPTST to order

8 trip blanks & extra labels.

note: K7229DF Corp # for

Enterprise

finish well installation

1000

attach, list-etc

1/11/14

7000-7075 Surface completion - bumper
post & protected protective
casing.

1045 Collected field blank
from water tank (drillers)
2-FBO1

(3) 40-ml WA H₂O VOC (8010/8020)
(1) 500-ml poly HNO₃ PPMs (6010/7000)
moving drums
✓

1000-1030 Decontaminating drilling,
1030-1200 cleanup, & other equipment by
Sikem cleaning.

1315 Completed with surface
completion or MW202B
1430 Completed surface
completion on MW201B

1515 Relinquished soil samples for
geotechnical analyses (as follows)
to Hanson Engineering (Springfield, IL)
- delivered by Joe Synd, Jr.

MW201B - 10.5 - 12.0

MW201B - 15.5 - 17.0

MW202B - 5.5 - 7.0

MW202B - 10.5 - 12.0

Station number

1630

Unalged by the following parameters and methods

pH (ASTM D 4972)
Organic Carbon Content (ASTM D 2974)
Vertical Hydraulic Conductivity (ASTM D 5084)
Moisture Content (ASTM D 2216)
Soil Dry Density (ASTM D 2937)
Grain Size Analysis (ASTM D 422)

Combined sieve & hydrometer

Relinquished soil samples for Laboratory Analysis (as follows) to NYTEST Environmental
MW 2013-0-0.5 ms/ms
MW 2028-0-0.5 Dye.

2 - RBS1 equipment rinacate blank

2 - FBS1 Field blank

2 - TBS1 Trip blank

Soil VOCs (SW 8240)

PPMs (SW 6010/7000)

Water VOCs (SW 6010/7000)

PPMs (SW 6010/7000)

Fed EX Air bill # 3272719321

GC returned to I.E.M.S.

Fed EX Air Bill # 7494583143

1630

2 boxes

1630

1 box
Returnable diplosimeter (MX 251)
4 regulators
Fed EX Air bill # 3272719332
Sent GC information (overhead)
to mark Escobar
letter
package
Fed EX Air bill # 3272719306
1710 Depart Fed EX

Kathryn Patchell

(20)

12/10/96

Monday

Weather: cloudy, 20's, highs in the 30's, snow expected

0600 Depart Hotel

0655 Arrived at base

Joe Aynd, Jr.

Rudy Amadoro

Jerry Castillo

Kathy Pridett

820 Health & Safety Meetings

835 (early) Antwerp

Boyer / Brian Nicholson

Engineering / Chris ~~Antwerp~~ Condemner

Jason Sydnor

on site - Site 2

- Walked over site with

surveyors

MW 201B - Development

PID 0.2 ppm

BG 0 ppm

W.L. 12.57 ft BTOC

TD 28.04 ft BTOC

silty

Started pumping

$V_{well}(2'') = (0.163)(V_{15.17 ft}) = 2.5 gal.$

$V_{pack}(2'') = (2.61)(12.5 ft)(0.30) = 9.7$

12/10/96

(41)

V_{well} in pack section = $(0.163)(12.3 ft) = 2 gal.$
 $9.6 - 2 = 7.6 gal$

+ 2.5 gal \rightarrow 10.3 gal

X 3 \Rightarrow 30.9 gal

Time	Gals	pH	Temp.	Cond.	Clarity
1109	2.5	12.6	7.01	733	very cloudy
1112	27.5	12.8	7.11	735	↓
1118	31	12.9	7.12	733	↓

Stopped pumping

MW 202B Development

PID: 0 ppm

BG: 0 ppm

W.L.: 7.34 ft BTOC

TD: 27.40 ft BTOC

$V_{water} = 20.16$

$V_{well} = (0.163)(20.06 ft) = 3.3 gal$

$V_{pack} = (2.61)(13.2 ft)(0.30) = 10.3 gal - 1.7 gal$

V_{well} in the pack = $(0.163)(10.5 ft) = 1.7 gal$

8.6 gal + 3.3 gal = 11.9 gal

1335 X 3 \rightarrow 35.7 gal

Started pumping

initial gals 0 pH Temp. Cond. Clarity

7.57 12.8 1003 clear

1412 13.5 gal \rightarrow pumped dry.

22

1430 Started pumping
1445 Stopped pumping - pumped dry
20 gals
1505 Started pumping
1520 Stopped pumping - need battery
in Harbor - 26.5 gals
1552 Started pumping
1609 Stopped pumping - 36 gals
Cable pH Temp. Windy
32 12 6.4 1100 7994
1600 35 12 7.0 1100 very cloudy
1607 36 12 7.0 1100 ↓
1609 Bill Henderson (HAZWRAP)
1615 arrived on site
1700 Depart site.
Depart base.

Weather: Cloudy 20's
0630 Depart Hotel
0730 Arrived at base
0830 Health & Safety Meeting

Joe Oyd, Jr.
Rudy Andronico
Jerry Castillo
Kathy Pittsott
Bill Henderson Hadberg

850 Arrived at Site 2
Bayer Engineering on site
Brian Nicholson
Chris Condorman
Jason Snydman

970 Located surface water/sediment sampling location, 2-5W02/2-50
- Placed stake at shore of pond
- Directly downstream of 2-5W02
→ need sample ~ 2-3 ft into pond
~ 945 Located surface water/sediment sampling location, 2-5W02/2-50
- Placed stake at shore of pond
- Directly downstream of 2-5W02
- need sample ~ 10 ft (middle of pond).

Kathy Pittsott

12/18/64 Wednesday

Weather: 10° to 20° high today,

cloudy, snow flurries expected
0615 Depart hotel

0730 arrived on base

- Bill Heiberg called at 0610
at the hotel to inform me that
he will be departing Springfield
this morning to avoid flight delay
(due to weather).

0745 Called Sharon Geil (ANGRC)

CEVR) to request collecting
the surface-water and sediment samples
in April due to ice (1/4" thick)
on the ponds. The samples collected

in spring will be representative of
the spring run-off and the worst-case
scenario. She agreed that the
surface-water and sediment samples
should be collected during the second
groundwater sampling event (April).

I informed her that we need
to consider the IDW analysis
for the pore settings and down water
since it was not in the mod. SOW.

Kathleen Phillips

She informed me that she had
put that task into the rewritten
mod. SOW and she thought that
the money needed for the analyses
were added in the last proposal
prior to the reorganization. I told
her that the IDW analyses cost was
not considered because it was not
in the SOW.

I instructed Joe Byrd, Jr. and
Randy Ansdorff to collect IDW

from MW201B & one soil sample per (2) drums
representing the Peer borehole

(2) pore
MW202B
total/sample
→ VOLS (ICLP - SW 8240)
→ PPMs (ICLP - SW 6010/7000)

2 deep
water
drums
• one water sample per down water
drum - VOLS (SW 8010/8100)
PPMs (SW 6010/7000)

They will collect groundwater samples
from MW201B & MW202B. Jerry
Castillo will collect the IDW sample
water-level measurements will be
collected this afternoon by Joe Byrd, Jr.
and Randy Ansdorff.

K. Phillips

(28)
0825

12/12/96
Health & Safety meeting
Joe Byrd, Jr.
Rudy Arredondo
Jenny Castillo
Kathy Fitzhugh
Joe Byrd, Jr. and
Rudy Arredondo depart home
for Site 2.
Arrived at Site 2
Jenny Castillo & Kathy
Fitzhugh.
Bayer Engineering on site
Brian Pickelorn
Chris Condemner
Jason Sengdam
Finished sampling MW 201B
945 Collected field blank -
ASTM Type II DI water - Site 2
2 - FBO's
(3) 40 ml WOA Hcl (SW 8010/8020)
(1) 500 ml Poly HNO₃ (SW 6010/7000)
1000 I DW drum inventory
1045 Arrived at MW 201B
Slug Test

1111 (C)
W.L. 12.78 ft BTOC
TD 27.30 ft BTOC
ID 6121 - injection test
Diurnal fluctuation
14.76
J.L. 12.75
Set, exp. 70 6.00
1128 Start test
1130 Called Eric Frankel with
Public Safety for the Capital
Airport Authority to discuss the
following:
• Asked him if we need the lighted
barriers with the flags around the
IDW drums on the Charlie Range - yes,
to avoid an aircraft from hitting
the drums with their wings.
• Asked him if we can keep the
drums (one at each location) that
we located at MW 201B & MW 202.
Wanted to be sure the well until April
after for the second sampling event,
- tell you - need to document in a
letter.
Asked him if he can check the Charlie
Range.

30

1144
1150
1156
1159

18 min 0.01
24 0.04
30 0.05
Stopped test

ID. 20122 - withdrawal test

ref. 0.0
Start test

1203
1214
10 min 0.15
12 min 0.11
24 min 0.03
28 min 0.03
36 min 0.03

Stopped test

1350 MW2020 - 5 day Test
W.L. 6.78 pt BT0C
TD. 27.40 pt BT0C
set transducer 19.7.7.

1405 ID. 20221 Injection test
W.L. 6.68
W.L. 6.72

1410
1423
Start test set ~~ref~~ 0.0
20 min - 0.03
30 min - 0.01
52 0.00

Stopped test

1435 Collected - Decor - D6
13) 40 ml VOA H₂O (2010/800)
11) 500 ml Rly HNO₃ (2010/700)
1445 collected - Decor - D7

same as above
1555 Collected - Decor - D8
same as above

1505 Contact Jay Gentry
(NYTEST) to check on sample delivery.

• deliverable on Tuesday
10°C - MW101

MW102
MW103
MW104
2-RB02

- cancelled analyses for those samples. need to resample.
1520 Start test - 20222
MW202B - Withdrawn

1602 36 min 0.04
44 min 0.01
50 min 0.01

1620 Stopped test
Kathy Pritchard

32)

12/10/90

Surveyors (Boyer Engineering)
 provided surveying topography
 & sampling locations at Site 2
 COC - NYTEST
 # 53446465 MW 201B-GW01
 MW 202B-GW01
 MW 202A-GW01 Dup. 202B
 2 - FB03 - field blank DI water
 TB-08 - Trip Blank
 DC0N-D6 } Decon
 DC0N-D7 } water
 DC0N-D8 }
 TB-15 Trip Blank
 Depart base

RP

12/11/94 (33)

Thursday

Weather: 4°F, snow predicted
 higher in 10's. 24°F wind chill
 0615 Depart hotel
 0715 arrived at base
 0725 calibrated P.I.D as per
 page 5 of this field logbook.
 Calibrated Horizon SW#000453
 Auto Calibration Solution 100-4
 Arrived at Site 2 400
 collect I DW soil colling

Jerry Castillo
 Kathryn Padgett

Health & Safety meeting

Joe Byrd, Jr.
 Rudy Arredondo

Jerry Castillo
 Kathryn Padgett

830 Joe Byrd, Jr. 4 Rudy Arredondo
 depart PL Bldg for Site 2
 resample MW101, MW102, MW103,
 at MW104, also 2 - PB02 -
 remnant blank for 2" disposable
 bailer (MW101),

905

collect I-DW soil colling
 MW 201B Duna 1 & 2

Kathryn Padgett

Ruth Padgett

12/24

905 IDW-1-2

(2) 802 clean wide-mouth jar
TCLP VOCs (SW 8240)
TCLP PPMs (SW 6010/7000)

915 IDW-3-4 MW 2028 soil
same as above withing drums 344
Decontaminated stainless-steel
hand auger with the following

- procedures:
- scrubbed with bleach²⁰ and pot²⁰ potable water
 - rinse with potable water
 - rinse with pesticide-grade methanol
 - rinse with DI water (ASTM Type II)
 - air dry - then wrapped in al foil (shiny side out).

— could not use hand auger to collect IDW soil samples because the soil was frozen solid. Chipped soil with clean hammer to break up frozen soil then placed in jar.

12/11 P. 11.11

Informed John Morris, He instructed to pieces held or analyzed for IDW soil until Tuesday (as we can work out cost of TCLP analysis)

925 Depart Site 2
1030

Contact Guy Corbett Corer
(NYT EST) (316) 945-2624

to check on samples shipped yesterday for today's delivery.

- informed him of IDW soil

Samples (2) for TCLP analysis - VOC's & PPMs will be ship

today with groundwater samples.

The IDW soil²⁰ soil samples will have a hold until Tuesday (12/23/90) and/or until cost for

analysis have been approved. I need to talk to Joe Dockery on cost.

- need to call back in 30 minutes for information on sample delivery.

Called Warnings bites of Illinois - 525-0190 - left

message
12/11 P. 11.11

1055

(36)

12/19/96

1/35

Called Jay Gerety (NYTIST)

— Samples are okay - 2°C
— keep 500-ml Poly HNO₃
COC - NYTIST

2-RB02 - ninestate blank -
mw102-GW04 2" tripple digested

mw103-GW04 blank

mw104-GW04

mw101-GW04

IDW-1-2 Hold analysis

IDW-3-4 ↓

TB-08 - Trip Blank

FedEx Air Bill: 74 700 17333

1550 — Packing Supplies
Arrived at Capital

Airport Authority Public Safety
\$ 85.00 personal check

15.00 Cash

\$ 100.00

process & 20.00
keep 80.00 - Return to me

1645 Depart Fed EX

KP

k Th P. in letter

Hermit Environmental Data

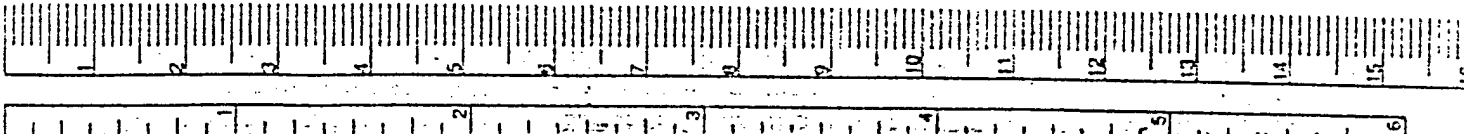
logger SE1000C

Serial #1KC-852

Transducer PXD-260

Serial # 204585

100 CM



IF YOU KNOW

TO FIND

LENGTH

inches	2.540	centimeters
feet	30.480	centimeters
yards	91.440	meters
miles	1.609	kilometers
inches	0.025	centimeters
feet	0.305	meters
yards	0.914	kilometers
miles	1.609	kilometers

WEIGHT

ounces	28.350	grams
pounds	453.592	grams
grams	0.002	kilograms
kilograms	2.205	pounds

VOLUME

fluid ounces	29.573	milliliters
pints	0.473	liters
quarts	0.946	liters
gallons (U.S.)	3.785	liters
milliliters	0.001	liters
liters	1.056	quarts
liters	0.264	gallons (U.S.)

TEMPERATURE

$$^{\circ}\text{C} = (^{\circ}\text{F} - 32) \times \frac{5}{9}$$

$$^{\circ}\text{F} = (^{\circ}\text{C} \times 1.8) + 32$$

inches	Decimal of foot	Metric meters
--------	-----------------	---------------

1/16	0.062	1.5875
1/8	0.125	3.1750
3/16	0.187	4.7625
1/4	0.250	6.3500
5/16	0.312	7.9375

3/8	0.375	9.5250
1/2	0.500	12.7000
5/8	0.625	15.8750
3/4	0.750	19.0500
7/8	0.875	22.2250

1'	0.305	30.480
2'	0.610	60.960
3'	0.914	91.440
4'	1.219	121.920
5'	1.524	152.400

6'	1.829	182.880
7'	2.134	213.360
8'	2.438	243.840
9'	2.743	274.320
10'	3.048	304.800

32511

"Return the Paper"

ALWAYS ATTACH WRITING PAPER

Joe Byrd, Jr

Name

Address

Phone

1315-269

CAPITAL AIRPORT

Lt. Deborah HAMRICK

183RD FTR GP @ CAP. AIRPORT

3101 J. DAVID JONES PRKWAY

SPRINGFIELD, ILL 62707-5000

(217) 757-1361

When you use this form, please attach all necessary documents and evidence to the bottom of the form. Do not place other information on the back of the form.

J.L. GARRIGUE CONSULTANTS
LAW OFFICES, P.A.
1000 N. W. 10th St., Suite 100
Fort Lauderdale, FL 33304

1342-6486-1

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PAGE	REFERENCE	DATE
AIR	1-800-224-	2724
Accu	1-800-442-	5290
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I.E. M.S.	1-800-532-	7474
HAZCO	1-800-332-	0435
Fisher Scie.	1-800-766-	7000
Analytical Scie.	684-	7373

GC STANDARD IS A CUSTOM MIX AT 2,000 PPM in MeOH of:

- ① Vinyl chloride, ② cis-1,2-DCE, ③ 1,2-DCA,
- ④ Benzene, ⑤ TCE, ⑥ Toluene, ⑦ PCE,
- ⑧ Ethylbenzene, ⑨ m-p-Xylene, ⑩ o-Xylene.

ARRIVE: 1:32
PLg Nb: TWA 7086

Rudy

①

WEDNESDAY

10 DEC 96

0700 leave hotel
— On BASE
— Meet w/ Lt. HAMRICK.
— UNLOAD Equipment
— Setup GC.
632 leave BASE.
1700 At Hotel.

11 DEC 96

0700 leave hotel.
0720 At AVIS to get MINIVAN.
0735 On BASE. Go to P2 and
— begin GC set-up and Build
— STANDARDS.
0845 Go to get supplies.
0950 On BASE.



AccuStandard Inc.

25 Schenck Park • New Haven, CT 06511
Phone 800-442-5290 • 203-786-5290

S-3586

Custom VOC Mix
2000 µg/mL in MeOH
Lot: A6120007
Exp. 01/01/98

1 mL

For Research Use Only

Storage: REFRIGERATE
11 comps.

CARCINOGENIC
MADE IN THE USA

NO
Entire
J. Byrd

1020	CARRIER GAS Flow	11 mL/min
—	GC OVER Temp	500°C
—	GAIN	1000
—	Injection Vol.	100 µL
—	Analysis Time	600 sec
—	Window	10%
1025	100 PPB STANDARD	
—	Good Run. Set Library	
1111	1 PPM STANDARD	
—	Good Run. Set Library.	

(3)

1" _____

(4)

1143 10 PPM STANDARD. _____
— NO GOOD. _____
1201 10 PPM STANDARD. _____
— NO GOOD. RESET GC. _____
1219 Turn off GC. let it cool. _____
Reset GC. _____
1332 100 PPB STANDARD. _____
1336 60% Airport to get Jerry C. —
— DRAP him off w/ K.P. _____
— Return to P-Z. Continue to —
— calibrate GC. _____
— Good Run for 100 PPB _____
1451 1 PPM BTANDARD. _____
— NO GOOD. _____
1508 1 PPM STANDARD. _____
— Set Library. _____
1531 10 PPM STANDARD. _____
— Set Library. _____
1553 AIR BLANK-1. _____
1602 AIR BLANK-2. _____
1610 AIR BLANK-3. _____
1619 AIR BLANK-4. _____
1627 AIR BLANK-5. _____
1636 AIR BLANK-6. _____

1643 AIR BLANK-7.

Mess w/ GC.

1740 leave Base. Secure P-Z.

1800 AT Hotel.

J. B. [Signature]

12 Dec 96

1545 Dinner hotel.
Breakfast (0.4)
7630 On Base. Set up GC.
Build 100 PPM, 1 PPM, 10 PPM
standards. Will list analytes
According to numbers in front of
this notebook.

CARRIER GAS FLOW — 8.5 μ l/min
GC OVEN TEMP — 50°C
GAIN — 1,000
INJECTION VOL — 10 μ l
ANALYSIS TIME — 600 sec
WINDOW — 10%

0724 100 PPB STANDARD.

NO GOOD.

0756 100 PPB STANDARD.

Good Run. Set LIBRARY.

0823 1 PPM STANDARD.

Set LIBRARY

0842 10 PPM STANDARD.

Set LIBRARY

0859 AIR BLANK - 1

① 12 ppb, ② 25 ppb, ③ 3 ppb, ④ 8 ppb,
⑤ 4 ppb, ⑥ 12 ppb, ⑦ 13 ppb, ⑧ 30 ppb,

0912 Set Auto Run to Good
Column. Calculate Minimum
Detection Limits (MDL's).

0944 AIR BLANK - 2.

① 12 ppb, ② 35 ppb, ③ ND
④ 3 ppb, ⑤ 1 ppb, ⑥ 3 ppb
⑦ 3 ppb, ⑧ 7 ppb, ⑨ 9 ppb
⑩ ND.

1007 AIR BLANK - 3.

① 8 ppb, ② 20 ppb, ③ ND, ④ ND
⑤ ND, ⑥ ND, ⑦ ND, ⑧ 1 ppb
⑨ 1 ppb, ⑩ ND.

1018 AIR BLANK - 4.

① 20 ppb, ② ND, ③ 21 ppb, ④ 22 ppb, ⑤ 25 ppb
⑥ 29 ppb, ⑦ 20 ppb, ⑧ 39 ppb, ⑨ 53 ppb, ⑩ 1 ppb

1033 AIR BLANK - 5.

① 16 ppb, ② ND, ③ 19 ppb, ④ 4 ppb, ⑤ ND
⑥ 1 ppb, ⑦ 1 ppb, ⑧ 2 ppb, ⑨ 3 ppb, ⑩ ND

1052 AIR BLANK - 6.

① 10, ② ND, ③ ND, ④ ND, ⑤ ND
⑥ ND, ⑦ ND, ⑧ ND, ⑨ ND, ⑩ ND

1104 AIR BLANK - 7.

① 7 ppb, ② ND, ③ ND, ④ ND, ⑤ ND
⑥ ND, ⑦ ND, ⑧ ND, ⑨ ND, ⑩ ND

John A. R.

(7)

11-22-10

1119 MW-201B 0.0'-0.5' 10g
1) 17ppb 2) ~~ND~~ 3) 22ppb 4) 7ppb 5) 1ppb
6) ND 7) ND 8) 1ppb 9) ND 10) ND
1131 MW-201B 5.0'-7.0' 10g
1) 21ppb 2) ~~ND~~ 3) 36ppb 4) 14ppb 5) 16ppb
6) 11ppb 7) 7ppb 8) 4ppb 9) 6ppb 10) ND
1144 MW-201B 10.0'-12.0' 10g
1) 23ppb 2) ~~ND~~ 3) 26ppb 4) ND 5) 2ppb
6) ND 7) ND 8) ND 9) ND 10) ND
1157 100 PPB STANDARD
Recalibrate to 100 PPB.
1217 AIR BLANK-8.
1) 10ppb 2) ~~ND~~ 3) ND 4) ND 5) ND
6) ND 7) ND 8) ND 9) ND 10) ND
Goto Site to confer w/KP.
Get samples.
1320 At P-2. Prepare samples.
1333 MW-201B 15'-17' 10g
1) 11ppb 2) ~~ND~~ 3) ND 4) ND 5) ND
6) ND 7) ND 8) ND 9) ND 10) ND
1346 MW-201B 20'-22' 10g
1) 14ppb 2) ~~ND~~ 3) ND 4) ND 5) ND
6) ND 7) ND 8) ND 9) ND 10) ND

(8)

11-22-10

1403 MW-201B 25'-26.5' 10g
1) 13ppb 2) ~~ND~~ 3) 9ppb 4) ND 5) ND
6) ND 7) ND 8) ND 9) ND 10) ND
1415 Goto Site to get samples.
Prepare samples.
1443 MW-202B 0'-2' 10g
1) 15ppb 2) ~~ND~~ 3) 10ppb 4) ND 5) ND
6) ND 7) ND 8) ND 9) ND 10) ND
1458 MW-202B 5'-7' 10g
1) 17ppb 2) ~~ND~~ 3) 7ppb 4) ND 5) 20ppb
6) 87ppb 7) 251ppb 8) 443ppb 9) 70ppb 10) 515ppb
1514 1 PPM STANDARD
Recalibrate
1530 AIR BLANK-9.
1) 14ppb 2) ~~ND~~ 3) 7ppb 4) 15ppb 5) 2ppb
6) 1ppb 7) 2ppb 8) 5ppb 9) 19ppb 10) ND
1542 AIR BLANK-10.
1) 10ppb 2) ~~ND~~ 3) ND 4) ND 5) ND
6) ND 7) ND 8) ND 9) ND 10) ND
1554 MW-202B Reshot 5'-7' 10g
1) 19ppb 2) ~~ND~~ 3) ND 4) 29ppb 5) 55ppb
6) 156ppb 7) 655ppb 8) 1290ppb 9) 253ppb 10) 1990ppb

5/13/24

12 DEC 16

19

1621 MW-202B 10'-12' 10g
1) 23 ppb 2) — 3) 13 ppb 4) 8 ppb 5) 16 ppb
6) 20 ppb 7) 16 ppb 8) 10 ppb 9) ND 10) ND
1637 MW-202B 15'-17' 10g
1) 37 ppb 2) ~~36 ppb~~ 3) 39 ppb 4) 10 ppb 5) 31 ppb
6) ~~44 ppb~~ 7) 49 ppb 8) 30 ppb 9) ND 10) 20 ppb
1653 MW-202B 20'-22' 10g
1) 18 ppb 2) — 3) 2 ppb 4) ND 5) ND
6) ND 7) ND 8) 1 ppb 9) ND 10) ND
1706 MW-202B 25'-27' 10g
1) 21 ppb 2) — 3) 35 ppb 4) ND 5) ND
6) ND 7) ND 8) ND 9) ND 10) ND
1719 10 PPB STANDARD.
1) 35 ppb 2) — 3) 34 ppb 4) 19 ppb 5) 28 ppb
6) 22 ppb 7) 18 ppb 8) 11 ppb 9) 27 ppb 10) 8 ppb
1731 100 PPB STANDARD
1) 108 ppb 2) — 3) 91 ppb 4) 94 ppb 5) 89 ppb
6) 82 ppb 7) 81 ppb 8) 82 ppb 9) 168 ppb 10) 138 ppb
— Shut down GC. Secure BLDG. P-2.
1747 Leave Base.
1805 At Hotel.

John R. dA

10

13 Dec 96

0615 Leave Hotel.
Breakfast (0.5)
0725 On Base.
Build STANDARDS, CALIBRATE GC.
0830 10 PPB BTEX STANDARD.
Set LIBRARY.
0849 AIR BLANK-1.
● ALL NON-DETECTS.
0901 AIR BLANK-2.
● ALL NON-DETECTS.
0913 10 PPB BTEX STANDARD.
● Benzene 11.6 ppb
● Toluene 10.1 ppb
● E-BENZENE 10.2 ppb
● m,p-XYLENE 20.8 ppb
● O-XYLENE 10.5 ppb
0927 POPCORN OIL
● Toluene 0.85 ppb
0939 AIR BLANK-3
● ALL NON-DETECTS.
0951 10 PPB BTEX STANDARD.
● Benzene 19.5 ppb

13 Dec 96

(11)

● Toluene 11.3 ppb
 ● E-Benzene 8.6 ppb
 ● M,P-Xylene 17.0 ppb
 ● O-Xylene 8.6 ppb
 Recalibrate
 1009 AIR BLANK-4.
 ● ALL NON-DETECTS.
 1021 DI WATER.
 ● Toluene 0.85 ppb
 ● M,P-Xylene 1.13 ppb
 1033 DIET COKE.
 ● Benzene 5.73 ppb
 ● Toluene 0.22 ppb
 ● O-Xylene 1.71 ppb
 1045 10 PPB BTEX STANDARD.
 ● Benzene 9.78 ppb
 ● Toluene 11.57 ppb
 ● E-Benzene 14.19 ppb
 ● M,P-Xylene 29.11 ppb
 ● O-Xylene 15.19 ppb
 Recalibrate.
 1100 AIR BLANK-5.
 ● ALL NON-DETECTS.

13 Dec 96

(12)

1112 BLACK COFFEE.
 ● Benzene 5.7 ppb
 ● Toluene 3.6 ppb
 1127 METHANOL.
 ● Benzene 7.4 ppb
 ● Toluene 3.05 ppb
 ● M,P-Xylene 1.74 ppb
 1140 10 PPB BTEX STANDARD.
 ● Benzene 22.6 ppb
 ● Toluene 21.8 ppb
 ● E-Benzene 18.6 ppb
 ● M,P-Xylene 18.6 ppb
 ● O-Xylene 18.6 ppb
 Recalibrate.
 1300 AIR BLANK-6.
 ● ALL NON-DETECTS.
 1313 MARKS-A-LOT.
 ● Toluene 3.3 ppb
 ● E-Benzene 20.6 ppb
 ● M,P-Xylene 68.2 ppb
 ● O-Xylene 62.3 ppb
 1326 MW-201B 5'-7' 10g.
 ● ALL NON-DETECTS.

- ALL NON-DETECTS.

● Benzene

Toluene

● E-Review

● m,p-xylene

0-XYlene

Benzene

Toluene

● E-Benzene

● m,p-Xylene

● O-Xylene

● Benzene

● Toluene

● E-Benzene

mp-Xylene

● O-Xylene

shipment back to EIMS.


W. B. B. B. B.

Eng. to drop-off Grootch

samples.

1620 Relinguish staplas.

1635 At Hotel.



A simple line drawing of a plant stem with three leaves. The stem is vertical, and the leaves are arranged alternately along it. Each leaf is elongated and pointed at the tip, with a small petiole connecting it to the stem. The drawing is done in a sketchy, hand-drawn style.

116 DEC 76

(15)

MONDAY

- 0600 leave Hotel.
- Breakfast. (0.5)
- 0700 On Base
- Waiting for Lt. Hamrick to
- open BLDG. P-2.
- 0715 Lt. Hamrick opens P-2.
- Gather sampling supplies, label
- bottles.
- 0830 Go to Site 1.
- Drop off stuff. Go get drum
- & ice.
- 0900 At MW-102 for purge &
- sampling.
- 1012 At MW-103.
- 1115 Done. Go get bolt-cutter.
- lunch
- 1300 At MW-104.
- 1341 Done
- 1344 At MW-101.
- 1430 Done. Go to P-2 to pack
- ice chest.
- 1542 Go to get kitty litter.

1630 Done ~~at~~ ~~RED~~

116 DEC 76

(16)

1700 At Hotel.

[Signature]

TUESDAY

0630 leave hotel. —
— Break fast. Buy Ice. —
0730 On Base. Prepare bottles —
— for sampling. —
0830 60 to Site Z. —
0856 At MW-203. Purge & Sample. —
0945 Done —
~~0945 MW-201. J.B.~~ —
1000 Stop and collect Field Blank —
— before, & FREEZES. —
1020 At MW-201. Purge & Sample. —
1100 Done. Go get gloves. —
1110 At MW-202. Purge & Sample. —
1205 Done. —
— lunch. —
1253 At P.Z. Fill out C-O-C. —
— Pack samples for FEDEX —
— Call Air Products for pick-up —
— of Air Bottle. —
— #14801 —
1500 Drop off Air bottle at shipping —
— Cogent Absorbant. —
1545 At FEDEX. —

1630 AT Hotel

W. J. W. R.

(17)

1.0

0615 leave Hotel. —
Breakfast. —
0720 On Base. —
— Pack & prepare for sampling. —
0840 Goto Site 2. Pack & Sample. —
0935 Done. Goto MW-202B. —
— Purge, Sample, Take Dap. —
1040 Done. —
— Goto P-2. —
1115 Go get baggies & ice. —
— lunch —
1300 At Site 1 for water level —
— measure ment. —
1340 Done. Goto Site 2. —
— Take water levels. —
1450 Done. —
— Goto P-2. Pack samples. —
— Prepare for tomorrow —
— sampling. —
0745 Leave Base. Goto FEDEx —
1805 At FEDEx —
1830 At Hotel —

JB 4/2

JB 4/2

Thursday

0615 leave hotel.
— On ~~BA~~ Breakfast.
— Get Ice.
0715 On Base. Pack van for sampling.
— Goto Site 1 to Purge & sample MW-102.
0823 Purge & Sample MW-103.
— Goto P-2.
0930 Goto Site 1. Sample & Purge MW-104.
— 1000
1040 Goto MW-101 to Purge & Sample.
1108 Done Sampling. Goto P-2 to pack equipment for shipment.
— lunch.
1240
1400 Packing stuff.
1545 Leave Base. Goto Security to turn in passes/badges.
1550 Goto FEDEX.
1620 At FEDEX.
1644 Done at FEDEX.

WJB ydgr

1700 At Hotel.

WJB ydgr

23

~~2/12/17
3/12/17
4/12/17~~

24

Tuesday -

- ① Take Water Levels
- ② Surface Water Samples
 - A) 2 SAM, 1 Dep, 1 MS/MSD
- ③ Sediment
 - A) 2 SAM, 1 Dep, 1 MS/MSD
 - B) 1 Rinsate then 8.5 sieve

102
103
104
101
RB
FB

Wednesday

- ① GW Sample Site 1
 - A) 4 SAM, 1 RB, 1 FB
- ② GW Sample @ Site 2?

203
201
201B

Thursday

- ① GW Sample
 - A) 5 SAM, 1 Dep

202 + F
202B + Dep

MONDAY

(25)

31 Mar 97

0600 Leave house
1400 Arr Hotel

All Supplies bought.
All Passes & Security done

J. Byrd

8 hrs

Tuesday
4-1-97

(26)

0600 Leave hotel
0640 Arr Base

Unpack stuff
Prepare Labels & Bottles
★ SW-03 is the DUPLICATE
★ for SW-01. ★ ★ ★
★ SD-03 is the DUPLICATE
★ for SD-01. ★ ★ ★

0831 Deviation: Will use Lab
Supplied Glass Jars for same
Sediment samples. Will use
Glass Jars for 4 Samples.

0853 Leave P-2 to begin water
level readings.

0905 MW-102	3.88'	B70C
0902 PZ-103	6.08'	"
0913 MW-103	7.21'	"
0915 PZ-102	7.67'	"
0910 MW-104	7.18'	"
0916 MW-101	8.03'	"
0908 PZ-101	6.16'	"

0920 Done @ Site 1.

(27) 4-1-97

0928 At Site 2

0930 PZ-204

0932 PZ-206

0934 PZ-205

0945 PZ-201

1023 MW-202

1021 MW-202B

0956 PZ-203

0951 PZ-202 ⁴³

1016 MW-202 ⁴³

~~0910~~ 1014 MW-202 ⁴³

1000 Goto P-2 to check on more

keys. The keys are not opening
the above ground wells.

Get more keys from Capt. Harvick.
Back @ Site 2.

1025 Done with water levels. Check
what.

1026 MW-203 8.53' BTDC

1027 NOW, Done w/ wk @ Site 2.

1045 Go get ice chest & bottles for
SW/SD sampling.

Go get ice and lunch

[Signature]

4/1/97

(28)

1200 at Site 2 for SD/SW

sampling.

1205 Take Brass Slave Liner
Blank.

1215 Take SW-01.

1220 Take SW-03.

1225 Take SD-01

1230 Take SD-03

1240 Done at SD-01/03 Site
Goto SD-02 Site.

1250 Take SW-02

1255 Take MS/MSD

1300 Take SD-02

1305 Take MS/MSD-SD

1320 Done, Goto P-2 to

clean up washers.

Pack ice chest & full ant
C-O-C.

Fill ant Bottle labels for
tomorrow.

Turns Decon of Brass Slaves:-
Wash with Alconox, Rinse w/
Potable water, Rinse w/D.I.

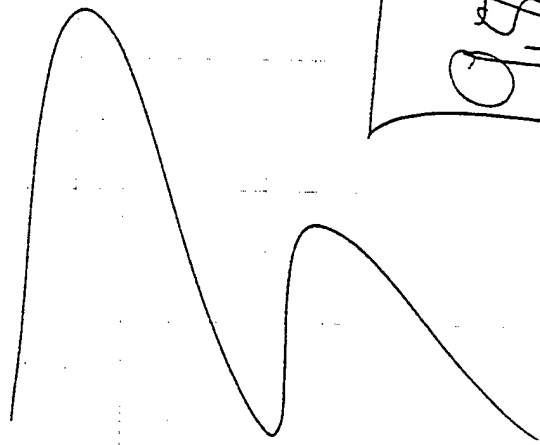
Water, Rinse w/ methanol,
allow to air dry.

[Signature]

129 4/1/97

Sediment Sampling Method:
 Brass sleeve - Cap one end of
 Brass sleeve, go to sample
 site, which is away top layer
 of organics, stick B.S. in
 Mud until even with
 Mud. and twist & remove
 sideways.
 The same with sample
 Bottle

1500 Leave Base, Go FEDEX
 1520 Done @ FEDEX
 1535 at Hotel



9.8.85

WEDNESDAY

30

2 April 97

0630 Leave Hotel
 0730 On Base
 Calibrated PID & HORBAS.
 Prepare, Exp today's Sample
 0840 At MW-102 to Page &

Sample.
 0850 Take Field BLANK
 0855 Take Bacler Rinseate.
 0900 Begin Purging MW-102

	VOL	Conc	Temp	pH
0902	1.5	0.750	10.9	6.84
0904	3.0	0.686	10.0	6.99
0907	4.5	0.894	10.1	7.02
0911	6.0	0.713	10.2	7.00
0917	7.5	0.711	10.1	6.99

0918 Done Purging
 0925 Sample MW-102.
 Go to MW-103

	VOL	Conc	Temp	pH
0940 Begin Purging MW-103				
0942	1	0.636	11.2	7.13
0945	2	0.632	10.9	7.11
0947	3	0.634	10.8	7.09
0948	4	0.632	10.8	7.08

9.8.85

12 April 97

(31)

0950	Done Purging			
0955	Take Sample MW-103			
1000	Done Sampling			
	Go to MW-104			
1044	Begin Purging MW-104.			
	VOL	Cond	Temp	pH
1046	1.0	1.21	11.2	6.87
1047	2.0	1.21	10.8	6.89
1049	3.0	1.22	10.8	6.93
1051	4.0	1.22	10.7	6.94
1052	Done Purging			
1100	Sample MW-104.			
	Go to MW-101			
1111	Begin Purging MW-101			
	VOL	Cond	Temp	pH
1114	1.0	1.03	11.4	6.93
1116	2.0	1.01	11.0	6.97
1117	3.0	0.99	11.0	6.99
1119	4.0	0.97	11.1	6.98
1120	Done Purging			
1125	Sample MW-101			
1130	Done @ MW-101			
	hunch			

JB

12 April 97

(32)

		Water Level	Total Depth
1334	PZ-203	8.57'	11.24'
1339	PZ-201	8.58'	14.99'
1343	PZ-205	6.64'	20.87'
1347	PZ-206	7.65'	22.54'
1349	PZ-204	8.14'	32.12'
1355	PZ-202	6.04'	11.68'
	Go to Site I		
1406	PZ-103	6.12'	10.74'
1411	PZ-101	6.19'	11.51'
1415	PZ-102	7.76'	11.75'
	Done		
	Go to P-2 & Prepare		
	sample for shipment.		
1535	Leave Base for FedEx		
1600	Done @ FedEx		
	Get Car		
1620	at Hotel		

9.5

3 April 97

(33)

0700 Leave Hotel
 0748 On Base
 Prepare for Sampling
 Calibrate I.D. & Horiba
 0812 At MW-203 to purge & Sample
 0850 Begin purging MW-203

VOL	pH	Cond	Temp
1.5	6.71	0.515	11.1
3.0	6.93	0.493	10.1
4.5	7.03	0.504	10.1
6.0	7.04	0.511	10.1

 0901 Done purging MW-203
 0903 Sample MW-203
 0915 Done at MW-203.
 At MW-202.
 0923 Begin purging MW-202

VOL	Temp	Cond	pH
1.5	9.6	0.910	7.03
3.0	8.9	0.747	7.03
4.5	8.9	0.738	7.04
6.0	9.1	0.747	6.98

 0925 Done purging
 0935 Sample MW-202
 0950

JB

3 April 97

(34)

Take filtered and unfiltered
 PPM sample. The filter is
 a G.E.O. Tech "Dispos A.F. 66"
 0.45 micron, #GDO95700
 1000 Done @ MW-202
 1017 Begin purging MW-202B

VOL	pH	Temp	Cond
3.5	6.87	11.8	1.07
7.0	6.87	11.8	1.07
10.5	7.0	12.0	1.10

 1042 Done purging MW-202B
 1050 Take Sample MW-202B
 1055 Take Sample MW-202A, which
 is a dup of MW-202B,
 Done @ MW-202 cluster
 Close & Seal all drums
 inside secure area
 1125 At MW-201 cluster
 113448 Begin purging MW-201

VOL	pH	Temp	Cond
1.0	7.22	11.4	0.644
2.0	7.13	10.7	0.645
3.0	7.12	10.6	0.645
4.0	7.10	10.5	0.644

 1138
 1140
 1142
 1143

JB

(135)

13 April 97

1145 Done purging MW-201
1151 Sample MW-201
1155 Done @ MW-201
1157 Begin purging MW-201B

	VOL	Temp	Cond	pH
1206	3.0	12.3	0.677	7.18
1212	6.0	12.4	0.673	7.17
1217	9.0	12.3	0.677	7.13
1220	Done purging MW-201B			
1227	Sample MW-201B			
1235	Done at Site 2. All dams are locked and secure.			
1330	Lunch At P-2 packaging all equipment, samples and stuff for shipment.			
1524	Leah Base. Call FEDEX.			
1531	Done @ FEDEX			
1600	At Hotel.			

(32)

9 hrs

MEASUREMENT CONVERSIONS

IF YOU KNOW MULTIPLY TO FIND
BY

LENGTH

inches	2.540	centimeters
feet	30.480	centimeters
yards	0.914	meters
miles	1.609	kilometers
millimeters	0.039	inches
centimeters	0.393	inches
meters	3.280	feet
meters	1.093	yards
kilometers	0.621	miles

WEIGHT

ounces	28.350	grams
pounds	0.453	kilograms
grams	0.035	ounces
kilograms	2.204	pounds

VOLUME

fluid ounces	29.573	milliliters
pints	0.473	liters
quarts	0.946	liters
gallons (U.S.)	3.785	liters
milliliters	0.033	fluid ounces
liters	1.056	quarts
liters	0.264	gallons (U.S.)

TEMPERATURE

$$^{\circ}\text{C} = (^{\circ}\text{F} - 32) \times .555$$

$$^{\circ}\text{F} = (^{\circ}\text{C} \times 1.8) + 32$$

Decimals

Inches	of foot	Milli-meters
1/16	.0052	1.5875
1/8	.0104	3.1750
3/16	.0156	4.7625
1/4	.0208	6.3500
5/16	.0260	7.9350

3/8	.0313	9.5250
1/2	.0417	12.700
5/8	.0521	15.875
3/4	.0625	19.050
7/8	.0729	22.225

1"	.0833	25.400
2"	.1667	50.800
3"	.2500	76.200
4"	.3333	101.60
5"	.4167	127.00

6"	.5000	152.40
7"	.5833	177.80
8"	.6667	203.20
9"	.7500	228.60
10"	.8333	254.00
11"	.9167	279.40
1 foot	1.0000	304.80



"Rite in the Rain"
ALL-WEATHER WRITING PAPER

Name RUDY C. AREDONDO

OPERATIONAL TECHNOLOGIES

Address 4100 N. W. Loop 410, Ste 230

SAN ANTONIO, TX.

Phone (210) 731-0000

Project CAPITOL AIRPORT (ILLINOIS A)

SPRINGFIELD, ILL

183 FIGHTER WING

1315-296

"Rite in the Rain" - a unique all-weather writing surface created to shed water and to enhance the written image. Makes it possible to write sharp, legible field data in any kind of weather.

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(2)

0940 ARRIVE @ DRUM STORAGE AREA
PICK UP 1-55 GAL DRUM
FOR PURGE WATER.
0945 DEPART DRUM STORAGE AREA
0855 ARRIVE @ GAS STATION TO GET
GAS & BAGS OF ICE.
0905 ARRIVE @ SITE 1, MW-102
SET-UP AROUND FLUSH MOUNT.
0920 START PURGE
0944 END PURGE R.A.
0950 START SAMPLING R.A.
0955 END SAMPLING R.A.
PARAMETER (FIELD)
Temp PH Cond Gals CLARITY
0934 12.7°C 6.96 .738 3 Lt. BROWN
0937 12.9°C 7.00 .730 3.5 "
0940 13.0°C 7.01 .733 4 "
0943 13.0°C 7.03 .735 4.5 "
END PURGE
0950 START SAMPLING
0955 END SAMPLING, COLLECT 3
VOA VIALS (VOCs - 8010/8020)
& 1-500ml PLASTIC (6010/7000)
1005 DEPART & SET UP @ WELL
P.A. 1.1

MW-103 (SITE 1)
1030 START PURGE
Temp. PH Cond. Gals CLARITY
1034 12.6°C 7.17 .693 2.5 CLOUDY/PA
13.1°C 7.15 .705 3 "
13.3°C 7.14 .704 3.5 "
13.1°C 7.13 .701 4 "
1040 END PURGE
1045 START SAMPLING
1050 END SAMPLING
COLLECTED VOCs (8010/8020) VOA
& 1-500ml PLASTIC (6010/7000)
1100 DEPART WELL MW-103
1105 ARRIVE BACK AT BLOG. P-2
TO GET BOLT-CUTTERS TO
CUT LOCKS. NEED NEW LOCKS
1130 BREAK FOR LUNCH
1230 END LUNCH
1255 ARRIVE @ WELL MW-104
SET-UP.
1312 START PURGE
Temp PH Cond. Gals CLARITY
1315 12.9°C 6.84 1.18 2 SLIGHTLY
1317 12.9°C 6.84 1.22 2.5 Lt. GRAY "
Rudy Dunsland

(4)

④	Temp	pH	Cond.	Gals	CLARITY
1319	13.1°C	6.91	1.24	3	SLIGHT CLODY
1321	13.3°C	6.92	1.23	3.5	4. GRAY
NOTE:	SLIGHT HYDROCARBON ODOR,				
	NO SHEEN, PID = 3.5 ppm				
	AFTER PURGE.				
1325	START Sampling				
1330	END Sampling				
1340	DEPART WELL MW-104				
	SET UP AT WELL MW-101				
1350	START PURGE				
	Temp.	pH	Cond.	Gals	CLARITY
1355	12.9°C	7.05	0.920	2	CLOUDY
1357	13.3°C	7.03	0.923	2.5	OK. GRAY
1359	13.4°C	7.05	0.924	3	" "
1401	13.5°C	7.03	0.921	3.5	" "
NOTE:	HYDROCARBON ODOR (SLIGHT)				
	NO SHEEN, PID = 2.1 ppm				
	BK GRD = 0.2 ppm AFTER				
	PURGE. R.A.				
1405	START PURGE Sampling				
	EDWARDS (AUDITOR)				
	ARRIVES ON SITE				
1410	END Sampling				
1422	LOAD UP EQUIPMENT				

12/16/96

1430 DEPART Site 1, WELL MW-101
 1435 ARRIVE @ BLDG P-2 & UNLOAD
 EQUIP. PREPARE C.O.C. &
 SAMPLE PREP FOR SHIPMENT.
 SAMPLES ARE ON ICE & WE
 NEED VERMICULITE
 1500 RELINQUISHED Samples for
 FED-EX
 1540 DEPART Illinois ANG
 (CAPITOL AIRPORT)
 1630 ARRIVE AT FED-EX &
 DELIVER Samples for
 SHIPMENT.
 1635 DEPART FED-EX
 1700 ARRIVE BACK AT HOTEL

NO MORE ENTRIES
 Ray
 12/16/96

0730 Arrive @ Capitol Airport,
 Illinois ANG. Bill Edberg
 is already on site.
 0740 CALIBRATE PID5/W 100 ppm
 ISOBUYTLENE & JERRY CALIBRATES
 HORIBAS W/ AUTO-CAL SOLUTIONS
 PH = 4.000
 0825 OPTech HEALTH & SAFETY
 0840 DEPART BLDG P-2
 0850 ARRIVE AT WELL MW-203, (SITE
 2). STICK-UP.

0908 START PURGE
 Temp. pH. Cond. Gals CLARITY
 0915 11.9°C 6.67 .724 2 cloudy
 0917 12.6°C 6.93 .679 3 "
 0919 12.5°C 6.97 .676 3.5 "
 0921 12.4°C 6.96 .672 4 "
 0930 START Sampling
 0935 END. Sampling
 0945 DEPART WELL MW-203
 ARRIVE @ HANGAR A" To
 COLLECT BLIND WATER
 SOURCE from SPICKETT
 I.O. NO. 2-FB-02

D. A. 1

1000 Collect Sample 2-FB-02
 1005 DEPART HANGAR A"
 1010 ARRIVE BACK @ P-2 BLDG.
 1015 DEPART BLDG P-2
 1020 ARRIVE @ SITE 2, MW-201
 1030 BEGIN PURGE
 Temp. pH Cond. Gals CLARITY
 1034 12.0°C 7.08 .732 1.5 cloudy
 1036 12.2°C 7.09 .731 2 "
 1038 12.1°C 7.10 .731 2.5 "
 1040 12.3°C 7.10 .930 3 "
 1045 START Sampling
 BILL EDBERG ARRIVES ON SITE
 1050 END Sampling
 1100 DEPART WELL MW-201
 1106 ARRIVE @ BLDG P-2 to Pick
 UP MORE NITRILE GLOVES
 1109 DEPART BLDG P-2
 1115 ARRIVE @ SITE 2, MW-202
 1130 BEGIN PURGE
 Temp. pH Cond. Gals CLARITY
 1137 10.0°C 7.10 .757 3 cloudy
 1139 10.3°C 7.11 .745 3.5 cloudy
 1141 10.4°C 7.13 .744 4 SLIGHTLY
 CLOUDY

11:10 AM

(8)

Temp.	pH	Cond.	Gals	CLARITY
1143	10.5°C	7.14	746	4.5
1150	START SAMPLING			SLIGHTLY CLOUDY
1155	END SAMPLING			
1205	DEPART SITE 2, WELL MW-202			
1210	BREAK FOR LUNCH			
1245	ARRIVE BACK ON BASE AT BUDG. P-2. WILL START PREPARING SAMPLES FOR SHIPMENT.			
1400	RELINQUISH SAMPLES FOR FED-EX SHIPMENT.			
1500	DEPART BUDG P-2, ILLINOIS ANG / CAPITOL AIRPORT			
1545	ARRIVE @ FED EX & DELIVER SAMPLES FOR SHIPMENT.			
1630	ARRIVE @ HOTEL			

NO MORE ENTRIES
12/17/96
Ray [Signature]

12/18/96

(1)

0730	ARRIVED @ CAPITOL AIRPORT / ILLINOIS ANG.				
0740	CALIBRATE PIDS W/ 100 PPM ISOBUTYLENE, CALIBRATE HOERER W/ AUTO-CAL SOLUTION.				
	pH = 4.000				
0820	OPTech HEALTH & SAFETY @ MT. DEPART BUDG. P-2				
0840	ARRIVE AT WELL 201B, SITE 2				
0900	BEGIN PURGE (PID NOT WORKING) (SHOWS NO READ OUT WHATSOEVER, IT GOES BUT NO READ OUT)				
	Temp	pH	Cond.	Gals	CLARITY
0913	12.8°C	7.00	.874	6.5	OK. BROWN
0915	13.2°C	7.06	.853	7	"
0917	13.3°C	7.09	.851	7.5	"
0919	13.2°C	7.10	.850	8	"
0925	START SAMPLING				
0930	END SAMPLING				
0935	DEPART WELL MW-201B				
0940	ARRIVE @ WELL MW-202B				
1000	BEGIN PURGE				
	Temp.	pH	Cond.	Gals	CLARITY
1012	14.0°C	7.28	1.12	9	OK. GRAY
1014	13.8°C	7.16	1.12	9.5	TURBID

(10)

12/18/96

Temp.	pH	Cond.	Gals	CLARITY OK. GRAY
1016	7.18	1.12	10	"
1018	7.19	1.12	10.5	"
1025	START Sampling			
1030	Collected Dup.			
1035	END Sampling			
1045	Loaded up & DEPARTED			
1055	WELL MW 202B - SITE 2			
1110	ARRIVED AT BLDG P-2			
	DEPART BLDG P-2 (IANG)			
	TO Buy Gas, ICE & 1-GAL			
	Zip Locs			
1149	BREAK for lunch			
1240	END LUNCH.			
1255	ARRIVE BACK ON BASE @			
	SITE 1 to COLLECT WATER			
	LEVELS from WELLS &			
	PIEZOMETERS.			
	WELL/PIEZOMETER (SITE 1)			DTW
1305	MW103	(FLUSH MOUNT)		7.72
1310	MW102	"		4.82
1315	MW104	"		7.73
1320	MW101	"		8.67

12/18/96

(11)

	WELL/PIEZOMETER	DTW
1323	PZ-103 (FLUSH MOUNT)	6.05'
1326	PZ-101	6.47'
1330	PZ-102	8.26'
	NOTE: PZ-104 COULD NOT BE LOCATED.	
1335	DEPART SITE 1	
	RA. @ BLDG P-2	
1340	ARRIVE @ BLDG P-2	
1345	DEPART BLDG P-2	
1350	ARRIVE @ SITE 2 to Collect	
	WATER LEVELS FROM WELLS &	
	PIEZOMETERS	
	(SITE 2)	
	WELL/PIEZOMETER	DTW
1358	PZ-204 (stick-up)	16.93
1402	PZ-205 (stick-up)	14.82
1405	PZ-206 (stick-up)	15.09'
1410	PZ-201 (FLUSH MOUNT)	9.01'
1418	PZ-202 PZ-203 (stick up)	10.98'
1422	PZ-202B (FLUSH MT.)	8.54'

(12) 12/18/96

WELL	PIEZOMETER	DTW
1431	PZ-203 (FLUSH mount)	10.38
1437	MW201 (stick-up)	12.13
1442	MW202 (stick-up)	6.12
1445	DEPART SITE 2	
1500	ARRIVE @ BLDG P-2 TO PREP SAMPLES.	
1630	RELINQUISH SAMPLES FOR FED-EX SHIPMENT.	
1700	RELINQUISH SAMPLES (K.P.'s) FOR FED-EX SHIPMENT	
1745	DEPART CAPITAL AIRPORT/ ILLINOIS ANG (BLDG P-2)	
1800	ARRIVE @ FED-EX & DROP OFF SAMPLES.	
1805	DEPART FED-EX	
1830	ARRIVE AT HOTEL	

Rudolph
NO MORE ENTRIES
12/18/96

12/19/96

(13)

0720	ARRIVED ON CAPITAL AIRPORT (ILLINOIS ANG) BLDG P-2
0730	K.P. CALIBRATES PID'S W/100 PPM ISOBUTYLENE & HORIBA W/AUTO CAL. SOLUTION PH = 4.000.
0800	HEALTH & SAFETY MEETING
0820	DEPART BLDG P-2
0823	ARRIVE @ SITE 1 TO RESAMP.
	WELL MW 102
0840	WE'LL COLLECT RINSATE @ THIS
	WELL MW 102
0842	BEGIN PURGE
	Temp. PH. Cond. Golf CLARITY
0846	13.1°C 6.88 7.88 3 Lt Brown
0848	13.4°C 6.84 7.54 3.5 "
0850	13.3°C 6.86 7.52 4 "
0852	13.3°C 6.87 7.53 4.5 "
0855	BEGIN Sample
0900	END Sample
0903	DEPART WELL MW-102
0906	ARRIVE @ SET-UP @ WELL MW-102

12/19/76

(14)

0914	BEGIN PURGE				
	Temp.	PH	Cond.	Gals.	CLARITY
0917	14.3°C	7.05	.709	2	LT. BROWN
0919	14.1°C	7.01	.710	2.5	"
0921	14.0°C	7.00	.711	3	"
0923	14.0°C	7.00	.712	3.5	"
0930	START SAMPLING				
0935	END SAMPLING				
0937	DEPART WELL MW-103				
0940	ARRIVE @ BLDG P-2				
0958	DEPART BLDG P-2				
1002	ARRIVE BACK @ SITE 1				
	WELL ^{PA} MW-104				
1011	BEGIN PURGE				
	Temp.	PH	Cond.	Gals.	CLARITY
1014	13.4°C	6.87	1.25	1.5	LT GRAY to CLEAR
1016	13.5°C	6.85	1.26	2	"
1018	13.7°C	6.84	1.26	2.5	"
1020	13.6°C	6.85	1.27	3	"
1025	START SAMPLING				
1030	END SAMPLING				
1033	DEPART WELL MW-104				

P. 1. 1

1035	ARRIVE @ WELL MW-101				
1044	BEGIN PURGE				
	Temp.	PH	Cond.	Gals.	CLARITY
1046	11.7°C	7.08	0.96	1.5	LT. GRAY
1048	12.7°C	6.90	0.97	2	"
1050	12.8°C	6.89	0.97	2.5	"
1052	12.9°C	6.88	0.97	3	"
1055	START SAMPLING				
1100	END SAMPLING				
1105	DEPART SITE 1, WELL MW-101				
1108	ARRIVE @ BLDG P-2				
	UNLOAD EQUIP/SUPPLIES				
	WILL START PREPPING SAMPLES				
	for SHIPMENT. ALSO START				
	PACKING UP SUPPLIES &				
	EQUIPMENT FOR SHIPMENT				
	BACK TO SAN ANTONIO, TX.				
1245	BREAK FOR LUNCH				
1345	END LUNCH, CONTINUE				
	PACKING				
1500	DEPART ILLINOIS ANG				
1530	ARRIVE @ HOTEL				
	NO MORE ENTRIES				

Paul Cleveland

WELL DEVELOPMENT LOG

Installation: 183rd FW, IANG
Client/Project: ANGRC/CEVR - Site: 2
Development Start: (Date) 12/16/96 (Time) 1010
Development End: (Date) 12/16/96 (Time) 1118
Development By: Kathryn Feitchett, Jerry Castillo
Background PID Reading: 0 ppm PID Reading: 0.2 ppm
Depth to Water (BTOW): 12.57' Depth to Bottom of Well (BTOW): 28.04'

Volume of Water in Well (gallons) = $(0.0408) \times (\text{well diameter (inches)})^2 \times \text{height of water column (feet)}$

(feet) $V_{\text{well}} = (0.163)(15.47 \text{ ft}) = 2.5 \text{ gals}$ $V_{\text{well in pack section}} = (0.163)(12.3 \text{ ft})$
 $V_{\text{pack}} = (2.61)(12.5 \text{ ft})(0.30) = 9.8 \text{ gals} - 2 \text{ gals} = 7.8 \text{ gals}$
 Volume of Water in Well x 3 =

Development method: $\rightarrow 30.9$ gals
Development Water Containment: 2" basin - disposable
Average Rate of Removal of Water: 5 5-gal, steel drum

$$\begin{array}{r} V_{\text{well}} + V_{\text{pore}} = 7.6 \text{ gels} \\ \underline{2.5 \text{ gels}} \\ 10.3 \text{ gels} \end{array}$$

Weather: Partly cloudy, 36

Comments: *Very strong*

[illegible]

WELL PURGING LOG

Installation: 163rd FW, IANG Well No. MW ~~201~~ B-6WD)
 Client/Project: ANGEL LEUR - ~~LAPO~~ Site: 2
 Purge Start: (Date) 12/18/96 (Time) 0900
 Purge End: (Date) 12/18/96 (Time) 0919
 Purged By: R. A. F. J. B.
 Background PID Reading: SEE COMMENTS PID Reading: SEE COMMENTS
 Depth to Water (BTWC): 12.66 Depth to Bottom of Well (BTWC): 27.80
 Volume of Water in Well (gallons) = (0.0408) x (well diameter (feet))² x height of water column
 (feet) 15.44

2.46
Volume of Water in Well x 3 = 7.40

Purge method: DISPOSABLE BAILER
Purge Water Containment: 55-GAL DRUM
Average Rate of Removal of Water: 0.42 GPM
Weather: PARTLY CLOUDY, 10°F, WIND CHILL -18°F, CHANCE OF FLURRIES

Comments: PID IS NOT FUNCTIONING PROPERLY, IT GOES ON BUT SHOWS NO READ OUT OF ANYTHING. TOTALLY BLANK READ OUT NEW 2" PVC WELL CASING, STICK UP.

[illegible]

WELL SAMPLING LOG

Installation: 183rd FW, IANG
 Client/Project: ANGRC/CEVR - Capital EE/K4
 Sample Start: (Date) 12/18/96 (Time) 0925
 Sample End: (Date) 12/18/96 (Time) 0930
 Sampled By: R.A. & J.B.
 Background PID Reading: SEE COMMENTS PID Reading: SEE COMMENTS
 Depth to Water (BTOC): 12.98
 Screen Interval: ~~23'-27'~~ 17.5-27.5
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOCs (SW 8010/8020) - (3) 40-ml VOA HCL
 PPMs (SW 6010/7000) - (1) 50-ml Poly HNO₃

QA/QC Samples:

~~Duplicate~~ - ~~mw~~
 2-RB02 - nitrate blank - 2* disposable bailer

Weather: PARTLY CLOUDY, ^{VERY} COLD 10 °F, -18 °F WIND CHILL

Comments: PID NOT FUNCTIONING PROPERLY
 IT GOES ON, BUT WITH NO READ OUT
 NEW 2" PVC WELL CASING, STICK UP

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
0915	13.2°C	7.06	.853	TURBID DK. BROWN	NO ODOR SILT
0917	13.3°C	7.07	.851	"	"
0919	13.2°C	7.10	.850	"	"

WELL DEVELOPMENT LOG

Installation: 183rd FW, IANG Well No. MW 202B

Client/Project: ANGRC/CEVR - Site: 2

Development Start: (Date) 12/16/96 (Time) 1337

Development End: (Date) 12/16/96 (Time) 1605

Development By: Kathryn Pritchett, Jerry Castillo

Background PID Reading: 0 ppm PID Reading: 0 ppm

Depth to Water (BTOC): 7.34' Depth to Bottom of Well (BTOC): 27.40'

Volume of Water in Well (gallons) = $(0.0408) \times (\text{well diameter (inches)})^2 \times \text{height of water column (feet)}$
 $V_{\text{well}} = (0.163) (20.04 \text{ ft.}) = 3.3 \text{ gals.}$

$V_{\text{pack}} = (2.61) (13.2 \text{ ft.}) (0.30) = 10.3 \text{ gals.}$
 $V_{\text{well in the well pack}} = (0.163) (105 \text{ ft.}) = 1.7 \text{ gals.}$

Volume of Water in Well x 3 = 35.7 gals
 + 3.3 gals
 11.9 gals

Development method: 2" disposable (new) baster

Development Water Containment: 55-gal drum

Average Rate of Removal of Water:

Weather: Sunny, 30's

Comments:

Time	Amount of Water Removed (gallons)	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity Turbidity	Remarks
1335	0	12.8	7.57	1003	86	Fit withal very clear
1412	13.5	purged dry				
1430	started purging			1040		
1434	15	12.9	7.50	1009	7999	very cloudy, silty
1440	19	12.6	7.62	1005	7999	"
1445	20	Stopped purging dry		1050		
1505	started purging					
1520	265	Stopped purging	Horiba	may read a battery		
1552	started purging					
1553	28	12.8	6.93	1080	7999	very cloudy
1600	32	12	6.7	1100	7999	very cloudy
1607	35	12	7.0	1100	"	"
1609	36	12	7.0	1100	"	"
						Stopped purging

WELL PURGING LOG

Installation: 183rd FW, IANG Well No. MW 202B - GW 01
 Client/Project: ANGRIC LEVEE - Capital Site: 2
 Purge Start: (Date) 12/18/96 (Time) 1000
 Purge End: (Date) 12/18/96 (Time) 1018
 Purged By: R.A. & J.B.
 Background PID Reading: SEE COMMENTS PID Reading: SEE COMMENTS
 Depth to Water (BTOC): 6.65' Depth to Bottom of Well (BTOC): 27.6'
 Volume of Water in Well (gallons) = $(0.0408) \times (\text{well diameter (feet)})^2 \times \text{height of water column (feet)}$
 20.95

3.41

Volume of Water in Well x 3 = 10.24 GALS

Purge method: *DISPOSABLE BAILER*

Purge Water Containment: 55-GAL DRUM

Average Rate of Removal of Water:

Weather: PARTLY CLOUDY, 10°F, VERY COLD, -18°F WIND CHILL

Comments: PID NOT FUNCTIONING, IT GOES ON BUT THERE IS NO READ OUT
NEW 2" PVC WELL CASING, STICK UP

[illegible]

WELL SAMPLING LOG

Installation: 183rd FW IANG Well No. MW 202B - GWS 1
 Client/Project: ANGL/CEVR - Capital Site: 2
 Sample Start: (Date) 12/18/96 (Time) 1025 COLLECTED DUP @ 1030
 Sample End: (Date) 12/18/96 (Time) 1035
 Sampled By: R.A. & J.B.
 Background PID Reading: SEE COMMENTS PID Reading: SEE COMMENTS
 Depth to Water (BTOC): 13.72
 Screen Interval: 24' - 27' 6/12/97 17.3 - 27.3
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOCs (SW 6010/8020) - (3) 40-ml VOA HPL
 PPMs (SW 6010/7000) - (1) 500-ml Poly HNO₃

QA/QC Samples:

Dup
 Time: 1030

Duplicate - ~~MW 202B~~ MW 202B
 MW 202A - GWS 1

Weather:

Some analyses
 2-RB02 - Rinse water blank - 2" disposable bailer
 PARTLY CLOUDY, VERY COLD, 10°F, WIND CHILL -18°F

Comments:

PID NOT FUNCTIONING PROPERLY, IT GOES ON
 BUT SHOWS NO READ OUT WHAT-SO-EVER.
 NEW 2" PVC WELL CASING, STICK UP
 SLOW RECHARGE

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
1014	13.8°C	7.16	1.12	DK. GRAY	NO ODOOR
1016	13.8°C	7.18	1.12	"	"
1018	13.7°C	7.19	1.12	"	"

WELL PURGING LOG

Installation: 183 rd FW, IANG Well No. MW-101

Client/Project: ANG RC ICEUR - Capital Site: EE/CA

Purge Start: (Date) 12/14/96 (Time) 10:44 ^{EE/EA}

Purge End: (Date)12/18/94(Time) 10:52

Purged By: R. A. & J. B.

Background PID Reading: 0.00ppm

PID Reading: 0.00ppm

Depth to Water (BTOC): 8.70'

Depth to Bottom of Well (BTOC): 14.20

Volume of Water in Well (gallons) = $(0.0408) \times (\text{well diameter (feet)})^2 \times \text{height of water column (feet)}$

5.5

0.29

Volume of Water in Well x 3 = 2.68 GALS

Purge method: DISPOSABLE BAILEY

Purge Water Containment: 55-GAL DRUM

Average Rate of Removal of Water: 0.37 GPM

Weather: PARTLY CLOUDY, VERY COLD, 4°F , WIND CHILL -20°F

Comments: *BAILER FULL THRU-OUT PURGE*

[illegible]

WELL SAMPLING LOG

Installation: 183rd FW, IANG
 Client/Project: ANGRC/CEVR - CAPITOL EE/CA
 Well No. MW 101
 Site: 1
 Sample Start: (Date) 12/19/94 (Time) 1055
 Sample End: (Date) 12/19/94 (Time) 1100
 Sampled By: R.A. & J.B.
 Background PID Reading: 0.00ppm PID Reading: 0.00ppm
 Depth to Water (BTOC): 9.20'
 Screen Interval: ~~11-19'~~ 6/17/97 4-14'
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOCs - 3 VOA VIALS (40ml) - 8010/8020
 ppm - 1 PLASTIC (500ml) - 6010/7000

QA/QC Samples:

RINSE - DISPOSABLE BAILER
 2-RB02

Weather: PARTLY CLOUDY, VERY COLD, 4°F
 WIND CHILL - 20°F

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
1048	12.7°C	6.90	0.97	LT. GRAY	SLIGHT HYDROCARBON OIL
1050	12.8°C	6.89	0.97	" "	" "
1052	12.9°C	6.88	0.97	" "	" "

WELL PURGING LOG

Installation: 183rd FW, IANG
Client/Project: ANGRC/CEVR-CAPITOL
Well No. MIN102
Site: 1

Purge Start: (Date) 12/19/94 (Time) 0842

Purge End: (Date) 12/19/94 (Time) 0852

Purged By: R.A. / J.B.

Background PID Reading: 0.00 ppm PID Reading: 0.00 ppm

Depth to Water (BTOC): 4.85' Depth to Bottom of Well (BTOC): 13.21'

$$\text{Volume of Water in Well (gallons)} = (0.0408) \times (\text{well diameter (feet)})^2 \times \text{height of water column (feet)}$$

1.34

$$\text{Volume of Water in Well} \times 3 = 4.08$$

Purge method: DISPOSABLE BAILER

Purge Water Containment: 55-GAL DRUM

Average Rate of Removal of Water: 0.45 GPM

Weather: PARTLY CLOUDY, VERY COLD, 4°F, WIND CHILL - 20°F

Comments:

FULL BAILER THRU-OUT PURGE

[illegible]

WELL SAMPLING LOG

Installation: 183rd FW, IANG
 Client/Project: ANGRC/CEVR-^{CAPITOL}
 EETCA
 Well No. MW102
 Site: 1
 Sample Start: (Date) 12/19/94 (Time) 0855
 Sample End: (Date) 12/19/94 (Time) 0900
 Sampled By: R.A. & J.B.
 Background PID Reading: 0.00 ppm PID Reading: 0.00 ppm
 Depth to Water (BTOC): 7.20'
 Screen Interval: ~~16'-13'~~ 6/17/97 3-13'
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOCs - 3 VOA VIAL (40mL) - 8010/8020
 PPM - 1 PLASTIC (500mL) - 6010/7000

QA/QC Samples:

RINSE BLANK - DISPOSABLE BAILER
 2- RB-02
 SAMPLE TIME - 0840

Weather: PARTLY CLOUDY, VERY COLD, 4°F
 WIND CHILL = -20°F

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
0840	13.4°C	6.84	754	LT. BROWN	NO COR
0850	13.3°C	6.86	752	"	"
0852	13.3°C	6.87	753	"	"

WELL PURGING LOG

Installation: 183rd FW, IANG Well No. MW103
 Client/Project: ANGEC/CEVR - ^{CAPITOL}_{EE/CA} Site: 1
 Purge Start: (Date) 12/19/96 (Time) 0914
 Purge End: (Date) 12/19/96 (Time) 0923
 Purged By: R. A. & J. B.
 Background PID Reading: 0.00 ppm PID Reading: 0.00 ppm
 Depth to Water (BTOC): 7.72' Depth to Bottom of Well (BTOC): 14.20'
 Volume of Water in Well (gallons) = (0.0408) x (well diameter (feet))² x height of water column
 (feet) 6.48'

Volume of Water in Well x 3 = 3.16 GALS

Purge method: *DISPOSABLE BAILER*

Purge Water Containment: 55-GAL DRUM

Average Rate of Removal of Water: 0.38 GPM

Weather: PARTLY CLOUDY, VERY COLD, 4°F, WIND CHILL - 20°F

Comments: FULL BAILER THRU - OUT PURGE

[illegible]

WELL SAMPLING LOG

Installation: 183rd FW, IANG Well No. MW103
 Client/Project: ANGR/CEVR - CAPITOL Site: 1
 Sample Start: (Date) 12/19/94 (Time) 0930
 Sample End: (Date) 12/19/94 (Time) 0935
 Sampled By: R.A. & J.B.
 Background PID Reading: 0.00ppm PID Reading: 0.00ppm
 Depth to Water (BTOC): 9.03'
 Screen Interval: 4-14' 6/17/97 4-14'
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOCs = 3 VOA VIALS (40ml) - 6010/8020
 PPMs = 1 PLASTIC (500ml) - 6010/7000

QA/QC Samples:

2 - RB-02
 RINSATE - DISP. BAILER

Weather: PARTLY CLOUDY, VERY COLD, 4°F
 WIND CHILL = -20°F

Comments:

	Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
0919	0919	14.1°C	7.01	710	LT. BROWN	NO ODOOR
0921	0921	14.0°C	7.00	711	"	"
0923	0923	14.0°C	7.00	712	"	"

WELL PURGING LOG

Installation: 183rd FW, FANG
Client/Project: ANGRC/CEVR - CAPITAL
Well No. MW104
Site: 1

Purge Start: (Date) 12/19/96 (Time) 1011

Purge End: (Date) 12/19/96 (Time) 1020

Purged By: R. A. & J. B.

Background PID Reading: 0.00ppm PID Reading: 0.00ppm

Depth to Water (BTWC): 7.73' Depth to Bottom of Well (BTWC): 13.41'

$$\text{Volume of Water in Well (gallons)} = (0.0408) \times (\text{well diameter (feet)})^2 \times \text{height of water column (feet)}$$

0.92

Volume of Water in Well x 3 = 2.77 GALS

Purge method: *DISPOSABLE BAILER*

Purge Water Containment: 55-GAL DRUM

Average Rate of Removal of Water: 0.33 Grm

Weather: PARTLY CLOUDY, VERY COLD, 4°F, WIND CHILL -20°F

Comments: FULL BAILER THRU-OUT PURGE

[illegible]

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WELL SAMPLING LOG

Installation: 183rd FW / TANG Well No. MW 104
 Client/Project: ANGRC/LEVR- ~~Capitol~~ EE/CA Site: 1
 Sample Start: (Date) 12/19/94 (Time) 1025
 Sample End: (Date) 12/19/94 (Time) 1030
 Sampled By: R. A. & J. B.
 Background PID Reading: 0.00ppm PID Reading: 0.00ppm
 Depth to Water (BTOC): 8.86'
 Screen Interval: ~~10-13'~~ 6/12/97 3-13'
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOCs = 3 VOA VIALS (40ml) - 8010, 8020
 ppms - 1 PLASTIC (500ml) - 6010/7000

QA/QC Samples:

~~RINSE~~
 RINSE - DISP. BAILER
 2 - RB-02

Weather: PARTLY CLOUDY, VERY COLD, 4°F, ~~W~~
 WIND CHILL = -20°F

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
1016	13.5°C	6.85	1.20	LT GRAY	STRONG HYDROCARBON ODOOR
1018	13.7°C	6.84	1.20	" "	" "
1020	13.6°C	6.85	1.20	" "	" "

WELL PURGING LOG

Installation: 183rd FW, IANG Well No. MW101 - GW03

Client/Project: ANGRI/CEVE - Capital Site: EE/1

Purge Start: (Date) 12/14/96 (Time) 1350 ^{EE/C}

Purge End: (Date) 12/16/96 (Time) 1401

Purged By: R.A. & J.B.

Background PID Reading: 0.2

PID Reading: 2.5 ppm

Depth to Water (BTOC): 8.60'

Depth to Bottom of Well (BTOC): 14.20'

$$\text{Volume of Water in Well (gallons)} = (0.0408) \times (\text{well diameter (feet)})^2 \times \text{height of water column (feet)}$$
 $(0.163) (5.6 \mu t)$

5.6

Volume of Water in Well x 3 =

2.7 GALS

Purge method: DISPOSABLE BAILEY

Purge Water Containment: 55-GAL DRUM ON SITE

Average Rate of Removal of Water: *0.32 GPM*

Weather: SUNNY, ~~FEEL~~ COLD, 40°F, SLIGHT BREEZE

Comments: 2" STAINLESS STEEL WELL CASING, FLUSH MOUNT ON GRASS,
WELL REPLACE LOCK,
BAKER FULL THRU-OUT PURGE, SLIGHT HYDROCARBON ODOR

[illegible]

WELL SAMPLING LOG

Installation: 183rd FW, IANG
 Client/Project: ANGRI/LEVR - Capital Site: 1
 Sample Start: (Date) 12/16/94 EE/CA (Time) 1405
 Sample End: (Date) 12/16/94 (Time) 1410
 Sampled By: R. A. & J. B.
 Background PID Reading: 0.1 ppm PID Reading: 2.1 ppm
 Depth to Water (BTOC): 8.73
 Screen Interval: ~~11-14~~ 6' 11" 14'-14'
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOCs (SW 8010/8020) - (3) 40-ml VOA HCL
 PPMs (SW 6010/7000) - (1) 50-ml Poly HNO₃

QA/QC Samples:

~~Blank~~ 2 - RBO2 - rinseate blank or disposable
 bailer

Weather: SUNNY, 40°F COLD, SLIGHT BREEZE

Comments: 2" STAINLESS STEEL WELL CASING, FLUSH MOUNT
 WE'LL REPLACE OLD LOCK
 FAST RECHARGE
 1 BAILER FILLED ALL CONTAINERS

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
1357	13.3°C	7.03	0.923	CLOUDY, DK GRAY	SLIGHT HYDROCARBON ODDOR
1359	13.4°C	7.05	0.924	"	"
1401	13.5°C	7.03	0.921	"	"

WELL PURGING LOG

Installation: 183rd FW IAN6 Well No. MW102 - GW 03
 Client/Project: ANGR/KVR-Capital Site: 1
 Purge Start: (Date) 12-16-96 (Time) 0920
 Purge End: (Date) 12-16-96 (Time) 0943
 Purged By: R. A. & J. B.
 Background PID Reading: 0.00ppm PID Reading: 0.00ppm
 Depth to Water (BTOC): 4.71' Depth to Bottom of Well (BTOC): 13.21'
 Volume of Water in Well (gallons) = (0.0408) x (well diameter (feet))² x height of water column (feet)
 8.5'

$i. 36,$
Volume of Water in Well x 3 = 4. CF Gals

Purge method: *DISPOSABLE BAILER*
Purge Water Containment: *55-GAL DRUM ON SITE*
Average Rate of Removal of Water: *0.19 GPM*
Weather: *CLOUD, PARTLY CLOUDY, 30°F, SLIGHT BREEZE*

Comments: TOTAL OF 4.5 GALS PURGED
1-55 GALS DRUM ON SITE FOR PURGE WATER
BAILER RETAINED FULL THRU-OUT PURGE, WE'LL REPLACE OLD LOCK

[illegible]

Lt. Brennan
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" "

WELL SAMPLING LOG

Installation: 183rd FW, IANG
 Client/Project: ANGRIC/CEVR - Capital EERCA
 Well No. MW102 - GW03
 Site: 1
 Sample Start: (Date) 12-16-96 (Time) 0950
 Sample End: (Date) 12-16-96 (Time) 0955
 Sampled By: R.A. & J.B.
 Background PID Reading: 0.00 ppm PID Reading: 0.00 ppm
 Depth to Water (BTOC): 6' 38"
 Screen Interval: 10' 13" to 13'
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOCs (SW 8010/8020) - (3) 40-ml VOA HCL
 PPMs (SW 6010/7000) - (1) 500-ml Poly HNO₃

QA/QC Samples:

~~none~~ 2 RBEZ - Rinse water blank on disposable
 bailer R.A.

Weather: PARTLY CLOUDY, COLD, 30°F SLIGHT BREEZE

Comments: MODERATE RECHARGE

2" STAINLESS WELL, FLUSH MOUNT
 1 BAILER FILLED ALL CONTAINERS.
~~BAILER REMAINED FULL R.A.~~
 WE'LL REPLACE OLD LOCK

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
0937	12.9°C	7.00	.730	SLIGHTLY CLOUDY	NO. ODOR
0940	13.0°C	7.01	.733	"	"
0943	13.0°C	7.03	.735	"	"

LT. BROWN

"

"

WELL PURGING LOG

Installation: 183rd FW, IANG Well No. MW103 - Gw03
 Client/Project: ANGRC/CEVR - Capital Site: 1
 Purge Start: (Date) 12-16-96 (Time) 08:00
 Purge End: (Date) 12-16-96 (Time) 1030
 Purged By: R. A. & B. J.
 Background PID Reading: 0.00ppm PID Reading: 0.00ppm
 Depth to Water (BTOC): 7.65' Depth to Bottom of Well (BTOC): 14.15'
 Volume of Water in Well (gallons) = (0.0408) x (well diameter (feet))² x height of water column
 (feet) (6.5')

(1.08)

$$\text{Volume of Water in Well} \times 3 = 3.25 \text{ GALS}$$

Purge method: *DISPOSABLE BAILER*

Purge Water Containment: 55 GAL DRUM ON SITE

Average Rate of Removal of Water: 0.4 GPM

Weather: PARTLY CLOUDY, COLD, 30°F, SLIGHT BREEZE

Comments: 2" STAINLESS STEEL WELL CASING, FLUSH MOUNT ON GEAS.
WELL SITUATED APPROX. 40-50'SE FROM AST (JP. 8)
BAILER FULL THRU-OUT PURGE, WE'LL REPLACE OLD LOCK

[illegible]

BROWN
"N' COLOR
"
"
"

WELL SAMPLING LOG

Installation: 183rd FW, IANG Well No. MW 103 - Gw03
 Client/Project: ANGRIC/LEVR - Capital Site: 1
 Sample Start: (Date) 12/14/94 (Time) 1045
 Sample End: (Date) 12/14/94 (Time) 1050
 Sampled By: R. A. & J. B.
 Background PID Reading: 0.00ppm PID Reading: 0.00ppm
 Depth to Water (BTOC): 8.62
 Screen Interval: ~~7-12-14~~ 6/12/97 4-14'
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOCs (SW 8010/8020) - (3) 40-ml UGA HCL
 PPMs (SW 6010/7000) - (1) 500-ml Poly HNO₃

QA/QC Samples:

~~None~~ 2-RB02 - rinseate blank on disposable
 COLLECTED RINSEATE bailer
 WHILE @ THIS WELL TIME: 1025 DATE: 12/16/94

Weather: PARTLY CLOUDY, 30°F, COLD, SLIGHT BREEZE

Comments:

2" STAINLESS STEEL WELL CASING.
 FLUSH MOUNT ON GRASS.
 WE'LL REPLACE OLD LOCK
 MODERATE RECHARGE
 1 BAILER FILLED ALL SAMPLE CONTAINERS

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
1034	13.1°C	7.15	.705	CLOUDY	NO COLOR - BROWN
1038	13.3°C	7.14	.704	"	" "
1040	13.1°C	7.13	.701	"	" "

WELL PURGING LOG

Installation: 183rd FW, IANG Well No. mw104 - Gw03

Client/Project: ANLGR/CEVE - Capital Site: 1

Purge Start: (Date) 12/16/96 (Time) 1312 ^{EE/KA}

Purge End: (Date) 12/16/94 (Time) 1321

Purged By: R.A. & J.B.

Background PID Reading: 0.00ppm PID Reading: 0.00ppm

Depth to Water (BTOC): 7.63' Depth to Bottom of Well (BTOC): 13.44'

$$\text{Volume of Water in Well (gallons)} = (0.0408) \times (\text{well diameter (feet)})^2 \times \text{height of water column (feet)}$$

(0.97)

Volume of Water in Well x 3 = 2.7 GALS

Purge method: *DISPOSABLE BAILER*

Purge Water Containment: 55 GAL DRUM ON SITE

Average Rate of Removal of Water: 0.38 GPM

Weather: PARTLY CLOUDY TO SUNNY, ABOUT 40°F, SLIGHT BREEZE

Comments: 2" STAINLESS STEEL WELL CASING,
FLUSH MOUNT ON GRASS,
NEED NEW LOCK & WE'LL REPLACE OLD LOCK.
BAILER FULL THRU-OUT PURGE.

[illegible]

LT
GRLT
DROCARBON

WELL SAMPLING LOG

Installation: 183rd FW, IANIG
 Client/Project: AN6RC/LEUR - Capital
 Sample Start: (Date) 12/14/94 EE/CA (Time) 1325
 Sample End: (Date) 12/14/94 (Time) 1330
 Sampled By: R.A. & J.B.
 Background PID Reading: 0.00ppm PID Reading: ~~0.00~~ 3.5ppm
 Depth to Water (BTOC): 7.92'
 Screen Interval: ~~4-12~~ 6/17/97 3-13'
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOCs (SW 8010/8020) - (3) 40-ml VOA HCL
 PPMs (SW 6010/7000) - (1) 500-ml Poly HNO₃

QA/QC Samples:

~~AN6, HP~~ 2-RB2 - ~~with~~ insert blank on
 disposable bailer

Weather: PARTLY CLOUDY TO SUNNY, 40°F, COOL, SLIGHT BREEZE

Comments: 2" STAINLESS STEEL WELL CASING,
 FLUSH MOUNT, WELL REPLACE OLD LOCK.
 MODERATE RECHARGE
 1 BAILER FILLED ALL CONTAINERS

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
1317	12.9°C	6.89	1.22	SLIGHT. CLOUDY LT. GRAY	SLIGHT HYDROCARBON
1319	13.1°C	6.91	1.24	"	"
1321	13.3°C	6.92	1.23	"	"

NO SHEET
 " "
 " "

WELL PURGING LOG

Installation: 183rd FW IANG Well No. MW 201 - GWO4
 Client/Project: ANGRICKER - Capital Site: 2
 Purge Start: (Date) 12/17/96 (Time) 1030
 Purge End: (Date) 12/17/96 (Time) 1040
 Purged By: R.A. & J.B.
 Background PID Reading: 0.00ppm PID Reading: 0.00ppm
 Depth to Water (BTWC): 12.08' Depth to Bottom of Well (BTWC): 16.89'
 Volume of Water in Well (gallons) = $(0.0408) \times (\text{well diameter (feet)})^2 \times \text{height of water column (feet)}$
 4.81'

C. 78

$$\text{Volume of Water in Well} \times 3 = 2.3 \text{ GPM/s}$$

Purge method: *DISPOSABLE BAILEY*

Purge Water Containment: 55 GAL DRUM

Average Rate of Removal of Water: 0.35 GPM

Weather: PARTLY CLOUDY, 25°F, WINDY & VERY COLD

Comments: EXISTING 2" STAINLESS STEEL WELL CASING
STICK-UP
BAILER REMAINED FULL THRU-CUT PURGE

[illegible]

WELL SAMPLING LOG

Installation: 183rd FW, IANG Well No. MW 201 - GWCY
 Client/Project: ANGRIC/CEER - Capital Site: 2
 Sample Start: (Date) 12/17/96 (Time) 1045
 Sample End: (Date) 12/17/96 (Time) 1050
 Sampled By: R.A. & J.B.
 Background PID Reading: 0.00 ppm PID Reading: 0.00 ppm
 Depth to Water (BTWC): 12.61'
 Screen Interval: 13.46' to 16.17/97 6.5-16.5'
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOCs (Sw 8010/8020) (3) 40-ml VOA HLE
 PPMs (Sw 6010/7000) (1) 500-ml Poly HNO₃

QA/QC Samples:

2-RBZ - Nitrate blank - disposable bailer

Weather: PARTLY CLOUDY, ^{VERY} COLD, 25°F, WINDY

Comments: EXISTING 2" STAINLESS STEEL CASING,
 STICK-LIP, MODERATE RECHARGE

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
1036	12.2°C	7.09	.731	CLOUDY TURBID	BROWN NO ODOOR
1038	12.1°C	7.10	.731	"	"
1040	12.3°C	7.10	.730	"	"

WELL PURGING LOG

Installation: 183rd FW, IANG Well No. MW 202-6W04
 Client/Project: ANERL/CEVR - Capital Site: 2
 Purge Start: (Date) 12/17/96 (Time) 11:30 EE/CA
 Purge End: (Date) 12/17/96 (Time) 11:43
 Purged By: R.A. & J.B. & J.C.
 Background PID Reading: 0.00 ppm PID Reading: 0.00 ppm
 Depth to Water (BTOW): 6.10 Depth to Bottom of Well (BTOW): 15.00
 Volume of Water in Well (gallons) = $(0.0408) \times (\text{well diameter (feet)})^2 \times \text{height of water column (feet)}$
 8.5'

1.45

Volume of Water in Well x 3 = 4.3 GALS

Purge method: *DISPOSABLE BAILER*

Purge Water Containment: 55-GAL DRUM ON SITE

Average Rate of Removal of Water: 0.346711

Weather: PARTLY CLOUDY, VERY COLD 25°F, WIND CHILL IN THE SINGLE DIGITS

Comments: EXISTING 2" STAINLESS STEEL CASING, STICK UP
STRONG HYDROCARBON ODOOR BUT NO HITS ON THE PID
FULL BAILER THRU-OUT PURGE.

[illegible]

WELL SAMPLING LOG

Installation: 183rd FW, IANG
 Client/Project: ANGRC/CEVR - Capital EE/CA
 Well No. MW 202-6W04
 Site: 2
 Sample Start: (Date) 12/17/96 (Time) 1150
 Sample End: (Date) 12/17/96 (Time) 1155
 Sampled By: R.A., J.B. & J.C.
 Background PID Reading: 0.00ppm PID Reading: 0.00ppm
 Depth to Water (BTWC): 6.90'
 Screen Interval: 12'-15' 6/17/97 4.8 - 14.8'
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOLS (SW 8010/8020) (3) 40-ml VOA HCL
 PPMs (SW 6010/7000) (1) 500-ml Poly HNO₃

QA/QC Samples:

2-RB02 - equipment rinse water blank - disposable bailer

Weather: PARTLY CLOUDY, 25°F, VERY COLD, CHANCE OF FLURRIES

Comments: EXISTING
 2" STAINLESS STEEL CASING, STICK-UP
 MODERATE RECHARGE
 STRONG ODOR

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
1139	10.3°C	7.11	.745	cloudy	BROWN STRONG ODOR
1141	10.4°C	7.13	.744	SLIGHTLY CLOUDY	LT BROWN STRONG ODOR
1143	10.5°C	7.14	.746	"	"

WELL PURGING LOG

Installation: 183rd FW, IANG
 Client/Project: ANGRL KEVR-^{Capital} EE/CA Site: 2 Well No. MW 203 - Gw04
 Purge Start: (Date) 12/17/96 (Time) 0908
 Purge End: (Date) 12/17/96 (Time) 0921
 Purged By: R.H. & J.B.
 Background PID Reading: 0.00 PPM PID Reading: 0.00 PPM
 Depth to Water (BTOC): 10.92 Depth to Bottom of Well (BTOC): 16.74
 Volume of Water in Well (gallons) = (0.0408) x (well diameter (feet))² x height of water column (feet)
 5.82

0.94

Volume of Water in Well x 3 = 2.8 Gals

Purge method: DISPOSABLE BAILER

Purge Water Containment: 55 GAL DRUM ON SITE

Average Rate of Removal of Water: 0.30 GPM

Weather: PARTLY CLOUDY, WINDY 25°F, WIND CHILL IN SINGLE DIGITS

Comments: 2" STAINLESS STEEL WELL CASING, STICK-UP.
 FULL BAILER THRU-CUT PURGE

Time	Amount of Water Removed (gallons)	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
0915	2 Gals	11.9°C	6.67	.724	CLOUDY	4. Brown in color
0917	3 Gals	12.6°C	6.93	.679	"	"
0919	3.5 Gals	12.5°C	6.97	.676	"	"
0921	4 Gals	12.4°C	6.96	.672	"	"

WELL SAMPLING LOG

Installation: 183rd FW, IANG Well No. MW203-GW04
 Client/Project: ANGR/CEVR - Capital Site: 2
 Sample Start: (Date) 12/17/96 (Time) 0930
 Sample End: (Date) 12/17/96 (Time) 0935
 Sampled By: R.A. & J.B.
 Background PID Reading: 0.00 ppm PID Reading: 0.00 ppm
 Depth to Water (BTOC): 10.21'
 Screen Interval: 13-16' 6.5-16.5'
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOCs (SW 8010/8020) (3) 40-ml WA HQ
 PPMs (SW 6010/7000) (1) 500-ml Poly HNO₃

QA/QC Samples:

2-RB02 - equipment rinsette blank - disposable bailer

Weather: PARTLY CLOUDY, COLD, 25°F WINDY

Comments: STICK-UP WELL, 2" STAINLESS STEEL CASING
MODERATE RECHARGE

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
0917	3.12 ^{12.6} GATS	6.93	679	CLOUDY	LT. BROWN NO ODOR
0919	3.5 ^{12.5} GATS	6.97	676	"	"
0921	4.12 ^{12.4} GATS	6.96	672	"	"

1315-269/4A

☒ Photoionization Detector ☐ Explosimeter/LEL/O₂ Meter ☐ Water Quality Meter[illegible]

Operational ~~Technologies~~ Calibration Log

☐ Photoionization Detector ☒ Explosimeter/LEL/O₂ Meter ☐ Water Quality Meter[illegible]

Operational Technologies Calibration Log

☐ Photoionization Detector ☐ Explosimeter/LEL/O₂ Meter ☒ Water Quality Meter (HORIBA)

☐ Photoionization Detector ☐ Explosimeter/LEL/O₂ Meter ☒ Water Quality Meter (HORIBA)

[illegible]

WELL SAMPLING LOG

Installation: *Capital Airport*
Client/Project: *AN 6*
Sample Start: (Date) *4-2-97*
Sample End: (Date) *4-2-97*
Sampled By: *J Byrd, J Castillo*
Background PID Reading: *0*
Depth to Water (BTOC):
Screen Interval:
Sampling method: *Disposable Bailer*
Sampling Equipment Decontamination method: *NONE*

Well No. ~~AA~~ *MW-101*
Site: *Site 1 POL*
(Time) *1125*
(Time) *1130*

PID Reading: *0*

Lab Analyses:

VOC SW 8010/8020
PPM SW 6010

QA/QC Samples:

NONE

Weather: *Breezy Clear Partly Cloudy, 50s*

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
<i>1125</i>					

WELL PURGING LOG

Installation: *Capital Airport*
 Client/Project: *2nd St*
 Purge Start: (Date) *4-2-97* *2nd St*
 Purge End: (Date) *4-2-97* *2nd St*
 Purged By: *J. Castillo, J. Byrd*
 Background PID Reading: *0*
 Depth to Water (BTOC): *4.01*
 Volume of Water in Well (gallons) = $(0.0408) \times (\text{well diameter (inches)})^2 \times \text{height of water column (feet)}$
1.46 gal

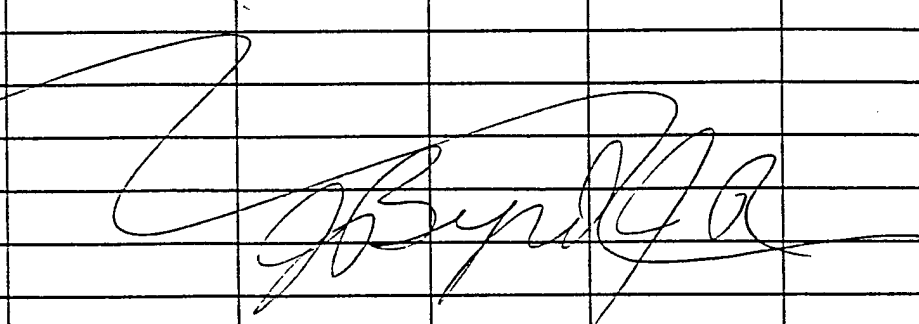
Well No. *MW-102*
 Site: *Site 1 POL*
 (Time) *0900*
 (Time) *0918*
 PID Reading: *0*
 Depth to Bottom of Well (BTOC): *12.95*

Volume of Water in Well x 3 = 4.4 gal

Purge method: *Disposable Bailer*
Purge Water Containment: *55 gal Drum*
Average Rate of Removal of Water:

Weather: 40's Clear to Partly Cloudy. Breezy

Comments:

Time	Amount of Water Removed (gallons)	Temperature (°C)	pH	Conductivity ($\mu\text{S}/\text{cm}$) (mS/cm)	Clarity Turbidity	Remarks
0902	1.5	10.9	6.84	0.750	93	Cloudy
0904	3.0	10.0	6.99	0.686	211	Clearer
0907	4.5	10.1	7.02	0.694	201	Clear
0911	6.0	10.2	7.00	0.713	240	"
0917	7.5	10.1	6.99	0.711	180	"
						

WELL SAMPLING LOG

Installation: *Capital Airport*

Client/Project:

Sample Start: (Date) *4-2-97*

Sample End: (Date) *4-2-97*

Sampled By: *J. Byrd, J. Costello*

Background PID Reading: *0*

Depth to Water (BTOC):

Screen Interval:

Sampling method: *Disposable Bailor*

Sampling Equipment Decontamination method: *NONE*

Well No. *MW-104*

Site: *Site 1 POL*

(Time) *0925*

(Time) *0930*

PID Reading: *0*

Lab Analyses:

VOC 8010/8020

MPM 6010

QA/QC Samples:

Field Blank

Bailor Rinse

Weather:

50's Clear Breezy

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
<i>0925</i>					

2

Well No. MW-103

Site: Sitz 1 POL

(Time) 0940

(Time) 0950

PID Reading: ~~0~~

Depth to Bottom of Well (BTOC): 13.92

Depth to Bottom of Well (BTOC): 13.92

1.1

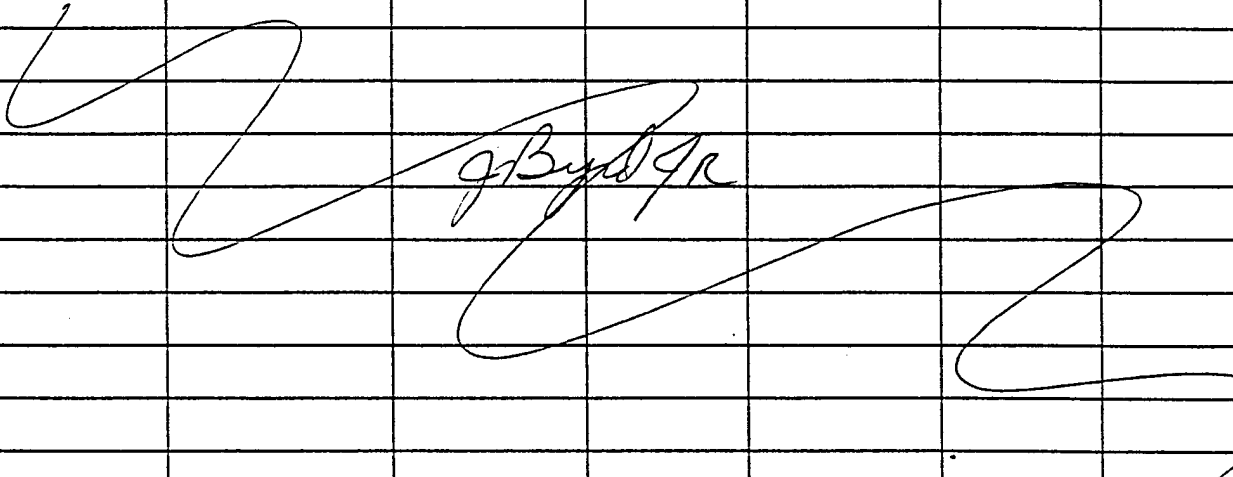
33

Purge Water Containment: 55 gal Drum

Average Rate of Removal of Water:

Weather: 50's Breezy Partly Cloudy

Comments:

Time	Amount of Water Removed (gallons)	Temperature (°C)	pH	Conductivity ($\mu\text{S}/\text{cm}$) (mS/cm)	Clarity Turbidity	Remarks
0942	1.0	11.2	7.13	0.636	157	Little Cloudy
0945	2.0	10.9	7.11	0.632	183	"
0947	3.0	10.8	7.09	0.634	515	"
0948	4.0	10.8	7.09	0.632	457	"
						

WELL SAMPLING LOG

Installation: *Capital Airport*
Client/Project: *AN6*
Sample Start: (Date) *4-2-97*
Sample End: (Date) *4-2-97*
Sampled By: *J. Byrd, J. Castillo*
Background PID Reading: *0*
Depth to Water (BTOC):
Screen Interval:
Sampling method: *Diaphragm Bailer*
Sampling Equipment Decontamination method: *NONE*

Well No.
Site:
(Time) *0955*
(Time) *1000*
PID Reading: *0*

Lab Analyses:

VOC SW 8010/8020
PPM 6010

QA/QC Samples: *NONE*

Weather: *50's Breezy Partly Cloudy*

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
<i>0955</i>					

3

Well No. MW-104

Site: site 1 POL

(Time) 1044

(Time) 1052

PID Reading: ~~0~~

Depth to Bottom of Well (BTOC): 13,17

$$0.0408) \times (\text{well diameter (inches)})^2 \times \text{height of water (feet)}$$

0.97

3

Responsable Berlin

55 gal Drum

Water:

50's Breezy Partly Cloudy

18

Time	Amount of Water Removed (gallons)	Temperature (°C)	pH	Conductivity (μS/cm) mS/cm	Clarity	Remarks
1046	1.0	11.2	6.87	1.21	158	Cloudy
1047	2.0	10.8	6.89	1.21	193	"
1049	3.0	10.8	6.93	1.22	2294	"
1051	4.0	10.7	6.94	1.22	315	"
9/3/2019						

WELL SAMPLING LOG

Installation: *Capital Airport*

Client/Project: AN 6

Sample Start: (Date) 4-2-97

Sample End: (Date) 4-2-97

Sampled By: *J. Byrd, J. Castillo*

Background PID Reading: 0

Depth to Water (BTOC):

Screen Interval:

Sampling method: Disposable Bailor

Sampling Equipment Decontamination method: *NONE*

Well No. MW-104

Site: Site 1 POL

(Time) 1100

(Time) 1105

PID Reading:

Lab Analyses:

VOC SW 8010/8020

ppm 6010

QA/QC Samples: *none*

Weather: 50's Breezy : Partly Cloudy

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
1100					

WELL SAMPLING LOG

Installation: *Capital Airport*
Client/Project: *AN 6*
Sample Start: (Date) *4-3-97*
Sample End: (Date) *4-3-97*
Sampled By: *R. J. Cuthbert*
Background PID Reading: *PID OUT*
Depth to Water (BTOC):
Screen Interval:
Sampling method: *Disposable Bailer*
Sampling Equipment Decontamination method: *NONE*

Well No. *MW-201*
Site: *Site 2 Old F+4*
(Time) *1148*
(Time) *1153*

PID Reading: *PID OUT*

Lab Analyses:

VOC 8010/8020
PPM 6010/7000

QA/QC Samples:

NONE

Weather:

Breezy

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
<i>1151</i>					

6

Time	Amount of Water Removed (gallons)	Temperature (°C)	pH	Conductivity ($\mu\text{S}/\text{cm}$) (ms/cm)	Clarity Turbidity	Remarks
1206	3.0	12.3	7.18	0.677	999	Cloudy
1212	6.0	12.4	7.17	0.673	999	"
1217	9.0	12.3	7.13	0.677	999	"

WELL SAMPLING LOG

Installation: *Capital Airport*
Client/Project: *AN6*
Sample Start: (Date) *4-3-97*
Sample End: (Date) *4-3-97*
Sampled By: *Castillo Byrd*
Background PID Reading: *PID04*
Depth to Water (BTOC):
Screen Interval:
Sampling method: *Disposable Bailin*
Sampling Equipment Decontamination method: *NONE*

Well No. *MW-201B*
Site: *Site 2 Old FTA*
(Time) *1225*
(Time) *1230*

PID Reading: *PID04*

Lab Analyses:

VOC SW8010/8020
PPM SW 6010/7000

QA/QC Samples:

NONE

Weather:

60's Breezy

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
<i>1227</i>					

4

Well No. MW-202

Site: Site 2 OLD FTA

(Time) 0923

(Time) 09 35

PID Reading: 0

Depth to Bottom of Well (BTOC): 14.75'

Depth to Bottom of Well (BTOC): 14.75'

Volume of Water in Well (gallons) = $(0.0408) \times (\text{well diameter (inches)})^2 \times \text{height of water column (feet)}$
 $1.48 \text{ gal}^2 \text{ gal}$

Volume of Water in Well x 3 = 4.43 gal

Purge method: *Vaspos, 64 Bauler*

Purge Water Containment: 55 gal Drum

Average Rate of Removal of Water:

Weather: 50's Partly Cloudy

Comments:

[illegible]

WELL SAMPLING LOG

Installation: *Capital Airport*

Client/Project: *ANG*

Sample Start: (Date) *4-3-97*

Sample End: (Date) *4-3-97*

Sampled By: *J. Byrd, J. Castillo*

Background PID Reading: *0*

Depth to Water (BTOC):

Screen Interval:

Sampling method: *Disposable Bailor*

Sampling Equipment Decontamination method: *NONE*

Well No. *MW-202*

Site: *Site 2 OLD FTA*

(Time) *0945*

(Time) *0955*

PID Reading: *0*

Lab Analyses:

VOE SW 8010/8020

PPM SW 6010 (filtered) 1 bottle

PPM SW 6010 (unfiltered) 1 bottle

FILTER: 0.45 micron, GeoTech # GD 045700
↳ 1800-833-7958

QA/QC Samples: *NONE*

Weather: *50's Partly Cloudy*

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
<i>0950</i>					

WELL PURGING LOG

Installation: Capital Airport.

Client/Project: ANG

Purge Start: (Date) 4-3-97

Purge End: (Date) 4-3-97

Purged By: *J. Byrd, J. Castillo*

Background PID Reading: \emptyset

Depth to Water (BTOC): 6.29'

Volume of Water in Well (gallons) = $(0.0408) \times (\text{well diameter (inches)})^2 \times \text{height of water column (feet)}$ *3.4 gal*

Well No. MW-202B

Site: Site 2 Old FTA

(Time) ~~1012~~ 1017

(Time) 1042

PID Reading: PID OUT

Depth to Bottom of Well (BTOC): 27.35'

Volume of Water in Well x 3 = 10.3 gal

Purge method: *Disposable Baler*

Purge Water Containment: 55 gal drum

Average Rate of Removal of Water:

Weather: 60's Partly Cloudy

Comments:

[illegible]

WELL SAMPLING LOG

Installation: *Capital Airport*

Client/Project: *ANG*

Sample Start: (Date) *4-3-97*

Sample End: (Date) *4-3-97*

Sampled By: *J Byrd, J Casella*

Background PID Reading: *0*

Depth to Water (BTOC):

Screen Interval:

Sampling method: *Disposable Bailers*

Sampling Equipment Decontamination method: *NONE*

Well No. *MW-202B*

Site: *Site 2 OLD FTA*

(Time) *1050*

(Time) *1100*

PID Reading:

Lab Analyses:

VOC SW 8010 / 8020

PPM SW 6010

QA/QC Samples:

Duplicate Sample MW-202A

Weather:

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
<i>1050</i>	<i>- MW-202B</i>				
<i>1055</i>	<i>- Dup - MW-202A</i>				

WELL PURGING LOG

Installation: *Capital Airport*
Client/Project: *AN6*
Purge Start: (Date) *4-3-97*
Purge End: (Date) *4-3-97*
Purged By: *g Byrd, Jerry Castillo*
Background PID Reading: *0*
Depth to Water (BTOW): *8.50'*
Volume of Water in Well (gallons) :
column (feet) *1.3 gal*

Well No. MW-203
Site: Site 2 OLD FTA
(Time) 0850
(Time) 0903

PID Reading: ~~0~~
 Depth to Bottom of Well (BTOC): 16.41'
 0408) x (well diameter (inches))² x height of water

Volume of Water in Well x 3 = 3.87 gal

Purge method: *Disposable Bailers*
Purge Water Containment: *55 gal Drum*
Average Rate of Removal of Water:
Weather: *50's Cool, Partly Cloudy*

Comments:

[illegible]

WELL SAMPLING LOG

Installation: *Capital Airport*

Client/Project: *ANG*

Sample Start: (Date) *4-3-97*

Sample End: (Date) *4-3-97*

Sampled By: *J. Byrd, J. Castillo*

Background PID Reading: *0*

Depth to Water (BTOC):

Screen Interval:

Sampling method: *Disposable Bailer*

Sampling Equipment Decontamination method: *NONE*

Well No. *MW-203*

Site: *Site 2 OLS FTA*

(Time) *0910*

(Time) *0915*

PID Reading: *0*

Lab Analyses:

VOC 8010/8020

ppm 6010

QA/QC Samples: *NONE*

Weather: *50's Partly Cloud*

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
<i>0912</i>					

X

☐ **Explosimeter/LEL/O₂ Meter**

☐ **Water Quality Meter**

[illegible]

Operational Technologies Calibration Log
☐ Photoionization Detector ☐ Explosimeter/LEL/O₂ Meter ☒ Water Quality Meter

☐ **Explosimeter/LEL/O₂ Meter**

☒ Water Quality Meter

[illegible]

APPENDIX B
BORING LOGS

INTRODUCTION

Boring log diagrams have been compiled for each borehole locations drilled during this study. The borehole identification is keyed to the monitor well designation (MW). The diagrams combine in one page both a verbal and graphical illustration of the lithology encountered during drilling, water level data encountered during drilling, and surveyed elevation of the ground surface at the borehole location.

The sample description includes the primary major component or components, color, consistency, relative density, texture, moisture, and observations of each distinct lithologic change encountered. Each distinct lithologic change that was encountered was defined by the Unified Soil Classification System (USCS), which is based on texture, sorting of clasts, and plasticity of soils. The color was determined by visually comparing the color of the sample with the Munsell Soil Color Charts. The texture was visually estimated and described using the following semi-quantitative adjectives:

<u>Adjective</u>	<u>Estimated Percent of Total Sample</u>
Trace	0 - 5
Little	5 - 12
Some	12 - 35
Add	35 - 50
















These adjectives precede the lithology, such as little clay (5 - 12% clay) or some sand (12 - 35% sand).

The fine fraction was described using one of the following terms: silt, silt and clay, or clay. These are field terms and take into account plasticity as well as grain size. The distinction between clay and silt was based on how easily a small piece of soil could be rolled into a thin ribbon. Clay can easily be smeared into a ribbon when wet, while silt is smeared with more difficulty. A dry sample of clay is difficult to crush with fingers, while a dry sample of silt is more easily crushed.

LITHOLOGIC LOGS

Lithologic symbols are derived and generalized from the USCS shown in Figure B.1. In the boring logs that follow, the column headings have the following meaning:

KEY TO BORING LOG SYMBOLS

UNIFIED SOIL CLASSIFICATION SYSTEM - ASTM D2487					
MAJOR DIVISIONS			SYMBOL/ GRAPHIC		DESCRIPTIONS
COARSE-GRAINED SOILS (>50% Smaller Than #200 Sieve)	GRAVELS (More than 50% of coarse fraction is larger than the #4 sieve size.)	Clean gravels with little or no fines	GW		Well-Graded Gravels, Gravel - Sand Mixtures
			GP		Poorly Graded Gravels, Gravels - Sand Mixtures
		Gravels with over 12% fines	GM		Silty Gravels, Poorly Graded Gravel-Sand-Clay Mixtures
			GC		Clayey Gravels, Poorly Graded Gravel-Sand-Clay Mixtures
	SANDS (More than 50% of coarse fraction is smaller than the #4 sieve size.)	Clean sands with little or no fines	SW		Well-Graded Sands, Gravelly Sands
			SP		Poorly Graded Sands, Gravelly Sands
		Sands with over 12% fines	SM		Silty Sands, Poorly Graded Sand-Silt Mixtures
			SC		Clayey Sands, Poorly Graded Sand-Clay Mixtures
FINE-GRAINED SOILS (>50% Smaller Than #200 Sieve)	SILTS AND CLAYS (Liquid limit less than 50)		ML		Inorganic Silts and Very Fine Sands, Silty or Clayey Fine Sands
			CL		Inorganic Clays of Low to Medium Plasticity: Gravelly, Sandy or Silty Clays; Lean Clays
			OL		Organic Clays and Organic Silty Clays of Low Plasticity
	SILTS AND CLAYS (Liquid limit greater than 50)		MH		Inorganic Silts, Micaceous or Diatomaceous Fine Sandy or Silty Soils, Elastic Silts
			CH		Inorganic Clays of High Plasticity Fat Clays
			OH		Organic Clays of Medium to High Plasticity, Organic Silts
	HIGHLY ORGANIC SOILS			Pt		Peat and Other Highly Organic Soils



Sample retained for on-site screening.



Sample prepared for laboratory analysis.



Water Table Level.

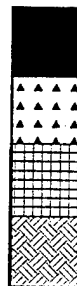
PID Photo-Ionization Detector readings (ppm).

ND Parameter Not Detected

NA Measurement Not Applicable,
Groundwater Not Detected

- No Measurement Performed

NR No Sample Recovery



Asphaltic Concrete

Portland Cement Concrete

Cement Grout

Boulders or Bedrock

FIGURE B.1

FORMS\KEYLOG2

KEY TO BORING LOG SYMBOLS
183rd FW, Illinois ANG
Springfield, Illinois

OPTTECH
OPERATIONAL TECHNOLOGIES
CORPORATION

JUNE 1987

Depth:	Depth in feet below surface.
Blows:	The number of blows required to drive a split-spoon sampler an additional 24 inches into the ground beyond the initial 6-inch set.
Ambient Temperature Headspace Analysis (ATHA):	The reading of photoionizable compounds detected in the contained soil sample by a photoionization detector.
Samples:	The interval of sample cored below land surface.
Percent Recovery:	The percentage of sample recovered in the split-spoon sampler per sampling run.
USCS:	Unified Soil Classification System based on texture, sorting of clasts, and plasticity of soils.
PID:	A photoionization detector used to monitor volatile organic compounds in uncontained soil and/or groundwater samples.

REFERENCES

- Casagrande, A., 1948. Classification and Identification of Soils. Transactions of the American Society of Civil Engineers 113:901.
- Folk, R. L., 1980. Petrology of Sedimentary Rocks. Hemphill Publishing Company, Austin, Texas, p. 182.1

O P T E C H
OPERATIONAL TECHNOLOGIES
CORPORATION

LOG OF BORING MW-201B

Project No.:	1315-269/4A
Logged By:	Kathryn Pritchett
Drilling Co.:	Hart Environmental
Driller:	Max Tinnin, Mike Umfleet
Date Drilled:	12/11/96
Drilling Method:	Hollow-Stemmed Auger

Sampling Method:	Split Spoon
Depth Drilled:	26.5 ft BLS
Depth To Water:	17.4 ft BLS
Date Measured:	12/12/96
Surface Elevation:	585.02 ft
TOC Elevation:	587.21 ft

Depth (ft.)	Blows/6"	% Recovery	Samples	Graphic	DESCRIPTION OF MATERIALS	FIELD SCREENING				Monitoring Well
						PID (ppm)	BTEX (ppm)	Cl Compds (ppm)		
3 4 5 9		50			Silt; little clay, trace sand; moist, 10 YR 3/3 (dark brown), roots.	0	0.008	0.04		
5 5 3 4 7		80			Silt; little clay; moist; soft; 10 YR 6/6 (brownish-yellow); 10 YR 7/1 (light grey) mottles; prismatic structure; iron staining.	0	0.04	0.08		
10 3 3 4 4		100			Silt; little-some clay; moist, soft; 10 YR 6/3 (pale brown); 10 YR 7/1 (light grey) mottles; iron staining; moderate plasticity.	0	ND	0.05		
15 3 4 5 7		100			Same as above.	0	ND	0.01		
20 8 15 15 15		50			Silt; trace-little clay; little to some gravel (granule-pebble) stiff, firm; little sand; 10 YR 4/6 (dark yellowish-brown) manganese and iron oxides. moist-wet. Difficult to auger.	0.5	ND	0.01		
25 40 50/5		75			Weathered shaley limestone; wet; very firm; very stiff; 10 YR 5/1 (grey).	0.3	ND	0.02		
Boring Terminated at 26.5 ft BLS. Auger Refusal										

Springfield, IL

**OPERATIONAL TECHNOLOGIES
CORPORATION**

Project No.:	1315-269/4A	Sampling Method:	Stainless-Steel Split Spoon
Logged By:	Kathryn Pritchett	Depth Drilled:	25.9 ft BLS
Drilling Co.:	Hart Environmental	Depth To Water:	14 ft BLS
Driller:	Max Tinnin, Mike Umfleet	Date Measured:	12/12/96
Date Drilled:	12/12/96	Surface Elevation:	581.26 ft
Drilling Method:	Hollow-Stemmed Auger	TOC Elevation:	583.65 ft

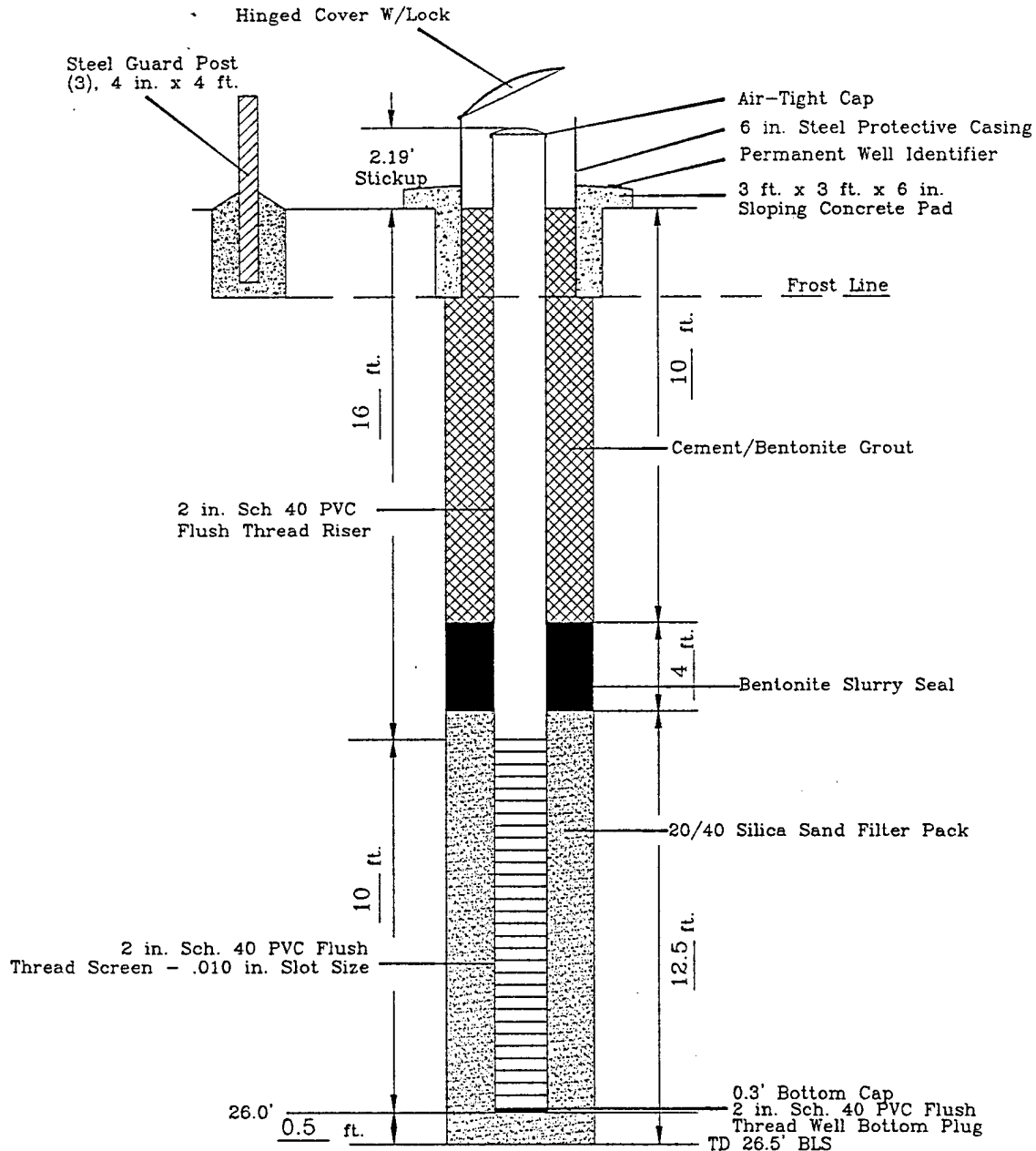
Depth (ft.)	Blows/6"	% Recovery	Samples	Graphic	DESCRIPTION OF MATERIALS	FIELD SCREENING			Monitoring Well
						PID (ppm)	BTEX (ppm)	CI Compds (ppm)	
2 3 5 6		50			Silt, little clay; trace sand, moist, roots, 10 YR 3/3 (dark brown).	0.5	ND	0.03	
5 2 4 4 5		75			Silt; little clay; 10 YR 6/2 (light-brownish grey) Iron oxides; light grey (10 YR 7/2) mottles; moist; soft; dark grey petroleum stain and petroleum odor at end of split spoon.	0.4	4	0.7	
10 2 3 4 6		100			Silt; little to some clay; 10 YR 6/1, (grey); soft, moist, Iron Oxides.	0.1	0.04	0.07	
15 2 1 7 16		100			Silt; trace - little clay; little sand; little - some gravel (granule to pebble), soft; wet, 10 YR 4/6 (dark yellowish-brown); manganese oxides, iron oxides.	0.1	0.1	0.2	
20 15 26 50		75			Refusal at 21.5'; 10 YR 5/1 (grey) very firm; very stiff; wet; broken shells Silt; blocky structures - platy structure - material was easy to drill, also water level dropped in borehole.		0.001	0.02	
25 18 50		25			Weathered shaley limestone, 10 YR 5/1 (grey); 10 YR 4/1 (dark grey) mottles; platy structure; very firm; very stiff. Water level rise in hole ~14' BLS. Boring Terminated at 25.9 ft BLS. Auger Refusal	0.1	ND	0.02	

APPENDIX C
MONITOR WELL CONSTRUCTION DIAGRAMS

Project: CAPITAL EE/CA
Town/City: SPRINGFIELD, IL
County: SANGAMON State: ILLINOIS
TOC Elev: 587.21 ft.
Ground Elev.: 585.02 ft.
Water Level: 17.4 ft. BLS
Total Well Depth: 26 BLS

Date Installed: 12/12/96
Drilling Contractor: HART ENVIRONMENTAL
Drilling Method: HOLLOW-STEM AUGER
Borehole Diameter: 8"
Development Technique: 2" BAILER

Not To Scale



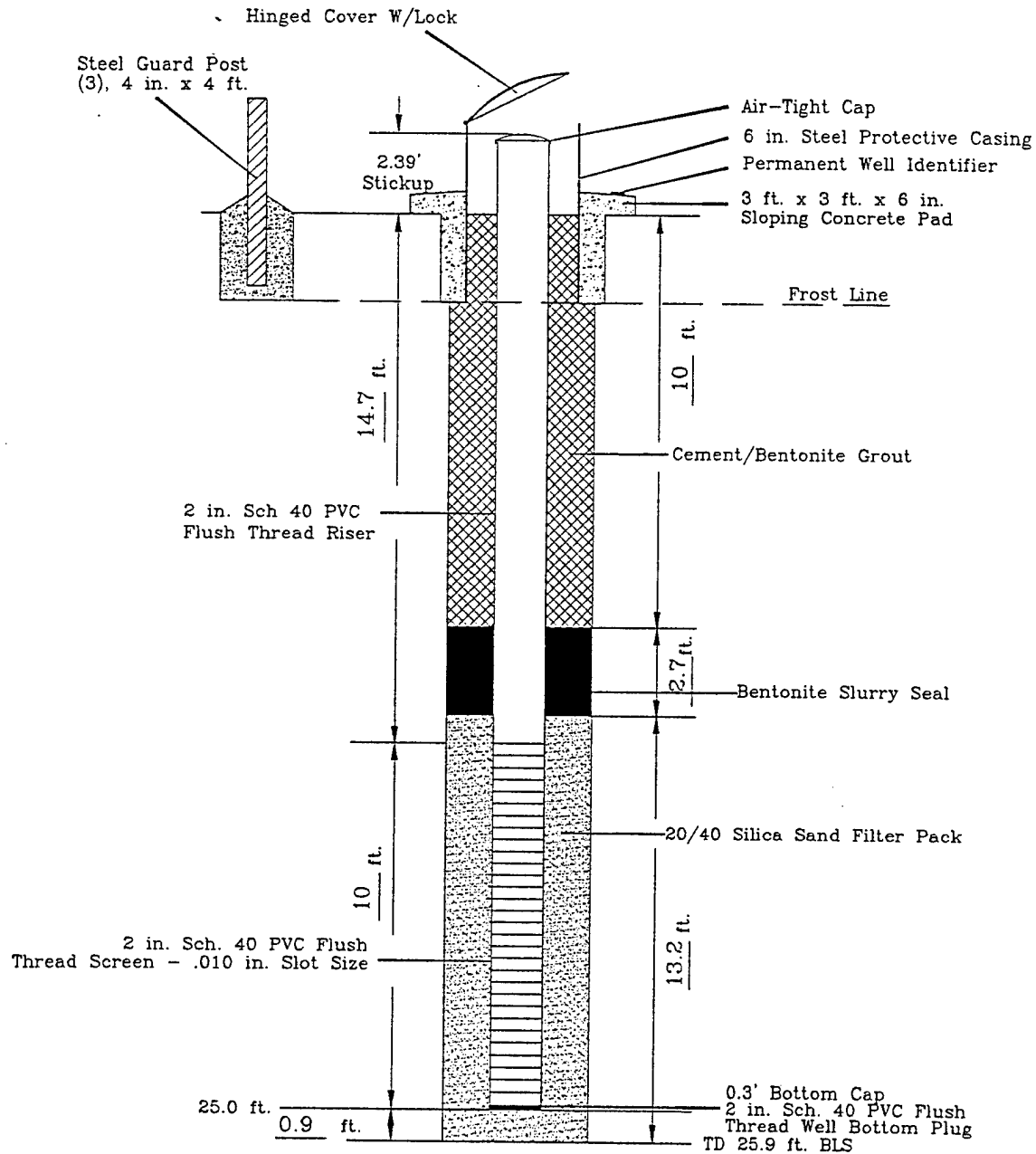
MONITORING WELL CONSTRUCTION LOG
WELL NO. MW201B

OPTTECH
OPERATIONAL TECHNOLOGIES
CORPORATION

JUNE 1997

ILLINOIS\TM-269\MONLOG2

Project: CAPITAL EE/CA	Date Installed: 12/12/96
Town/City: SPRINGFIELD, IL	Drilling Contractor: HART ENVIRONMENTAL Max Tinmin, Mike Umfleet
County: SANGAMON State: ILLINOIS	Drilling Method: HOLLOW-STEM AUGER
TOC Elev: 583.65 ft.	Borehole Diameter: 8"
Ground Elev.: 581.26 ft.	Development Technique: 2" BAILER
Water Level: 14 ft. BLS	
Total Well Depth: 25 BLS	Not To Scale



MONITORING WELL CONSTRUCTION LOG
WELL NO. MW202B

OPTTECH
OPERATIONAL TECHNOLOGIES
CORPORATION

JUNE 1997

ILLINOIS\TM-269\MONLOG

APPENDIX D
AQUIFER SLUG TEST DATA ANALYSIS

APPENDIX D

AQUIFER SLUG TEST DATA ANALYSIS

D.1 INTRODUCTION

Aquifer slug tests on two monitoring wells were performed to investigate the hydraulic properties of the unconsolidated deposits. A detailed description of the data collection and analysis is presented in the following sections.

The slug test method is used to obtain data necessary to calculate the hydraulic conductivity of the subsurface material around the screened portion of a monitoring well. The technique is based on measurements of the water level as a function of time after withdrawing a slug of known volume from the monitoring well.

D.2 AQUIFER SLUG TEST PROCEDURE

The equipment used for slug testing included a Hermit Environmental Data Logger model SE1000C (serial #1KC-852), manufactured by *In Situ*, Inc., of Laramie, Wyoming. Also used was a pressure transducer model PXD-260 (serial #204585), manufactured by *In Situ*, Inc. An acrylic slug (1.25 inches in diameter and 4 feet in length) was used to produce the initial water displacement.

Prior to testing, the monitoring well was developed and the water level allowed to stabilize. The slug was decontaminated using standard procedures prior to performing the slug test.

Immediately upon opening, the headspace of the monitoring well to be slug tested was tested for volatile organic vapors using a photoionization detector. Next, the initial water level was measured and recorded in the field logbook and the pressure transducer was placed in the monitoring well and allowed to equilibrate. The proper operating parameters such as time, date, test number, sample rate, number of inputs, data type, and scale factor and offset values of the transducer were inserted to properly program the data logger for the slug test. The decontaminated slug was rapidly lowered into the monitoring well in such a manner as to minimize turbulence and splashing. The injection of the slug created a nearly instantaneous rise in the water level or hydraulic head as well as some transient oscillations (minimized by the smooth slug injection). After the initial rise, the water level of the monitoring well dropped as it returned to equilibrium. The water-level altitudes were recorded by the data logger.

After equilibrium was attained, the slug was rapidly and smoothly removed from the monitoring well and the subsequent rise of the water level in the monitoring well versus the time since the start of the test was also recorded by the data logger.

After the slug test was completed, the data was downloaded onto a computer and printed out by a portable printer.

D.3 SLUG TEST DATA ANALYSIS METHOD

The method used for analysis of the slug test data depends on the setting of the monitoring well being tested. The Bouwer and Rice (1976) method for unconfined conditions is the appropriate method to use for reduction of the slug test data to determine values of hydraulic conductivity. The Bouwer and Rice method can also be used for semi-confined and confined conditions (Bouwer, 1989).

The data plots and data reduction for the Bouwer and Rice method were accomplished using the AQTESOLV software package Version 2.0 developed by Geraghty & Miller (1994).

The slug test data analyses using Bouwer and Rice (1976) method is presented in this section. The slug test results are presented in Section D.4.

The method described by Bouwer and Rice (1976) is used to calculate the hydraulic conductivity of an aquifer or hydrologic unit in the vicinity of a well screen from the rate of rise or fall of the water level or hydraulic head in the monitoring well after a known volume or "slug" is suddenly injected or withdrawn. This particular method is based on the following assumptions: (1) drawdown of the water table around the monitoring well is negligible, (2) flow above the water table (in the capillary fringe) can be ignored, (3) head losses as water enters the monitoring well (well losses) are negligible, and (4) the aquifer is homogeneous and isotropic.

The rate of flow of groundwater into a monitoring well after the water level has been lowered a distance, y , below the static water table around the monitoring well is calculated using the Thiem equation (Equation 1).

$$Q = 2\pi KL \frac{y}{\ln(R_e/r_w)}, \text{ where} \quad (1)$$

Where:

- Q = rate of flow into the well;
 π = 3.14159, the ratio of the circumference to the diameter of a circle;

K	=	hydraulic conductivity of the hydrologic unit in the vicinity of the well screen;
L	=	length of screened interval;
y	=	vertical difference between water level inside the well and the static water level outside the well;
R _e	=	effective radial distance over which y is dissipated; and
r _w	=	radial distance to the undisturbed portion of the hydrologic unit from the centerline of the well.

The value of r_w is the radius of the screened section of the monitoring well plus the thickness of the sand pack and the developed zone around the monitoring well. Because the thickness of the developed zone is almost never known, the tendency is to ignore it and take only the thickness of the sand pack into account (Bouwer, 1989).

The rate of rise of the water level (dy/dt) in the well after the water level has been quickly lowered can be regarded as:

$$\frac{dy}{dt} = \frac{-Q}{\pi r_c^2} \quad (2)$$

dy/dt	=	rate of rise of the water level within the well;
Q	=	volume rate of flow into the well;
π	=	3.14159, the ratio of the circumference to the diameter of a circle; and
r _c	=	radius of the casing.

If the water level rises in the screened section of the well with a sand pack around it, then the thickness and porosity of the sand pack should be taken into account when calculating the equivalent value of r_c for the rising water level. The equivalent value of r_c is then calculated using Equation (3) if the water level is within the screened interval of the monitoring well.

$$r_c = [(1 - n)r_c^2 + nr_w^2]^{1/2}, \text{ where} \quad (3)$$

n	=	porosity of the sand pack;
r _c	=	radius of the casing; and
r _w	=	radius distance to the undisturbed portion of the aquifer from the centerline of the well.

By solving Equation (2) for Q, and using it in Equation (1), it is possible to integrate, and solve for hydraulic conductivity, K, in Equation (4).

$$K = r_c^2 \ln \frac{(R_e/r_w)}{2L} \frac{1}{t} \ln \frac{y_o}{y_t}, \text{ where} \quad (4)$$

- K = hydraulic conductivity;
 r_c = radius of casing;
 R_e = effective radial distance over which y is dissipated;
 r_w = radial distance to the undisturbed portion of the aquifer from the centerline of the well;
 y_o = y at time zero; and
 y_t = y at time t .

This equation was used to calculate hydraulic conductivity of the unconsolidated deposits at IRP Site No. 2.

Values of R_e , effective radius, for various system geometries are expressed in terms of the dimensionless ratio $\ln(R_e/r_w)$ and were determined empirically with an electrical resistance network analog for different values of r_w , L , length of water column in the well, H , and hydrologic unit thickness, b , (Bouwer and Rice, 1976). The data are used in one of two equations: Equation (5) is used when H is less than b , and Equation (6) when H is equal to b . These equations are:

$$\ln \frac{R_e}{r_w} = \left[\frac{1.1}{\ln(H/r_w)} + \frac{A + B \ln[(b - H)/r_w]}{L/r_w} \right]^{-1}, \text{ and} \quad (5)$$

$$\ln \frac{R_e}{r_w} = \left[\frac{1.1}{\ln(H/r_w)} + \frac{C}{L/r_w} \right]^{-1}, \text{ where} \quad (6)$$

- $A, B, \text{ and } C$ = dimensionless values as a function of L/r_w ;
 R_e = effective radial distance over which y is dissipated;
 r_w = radial distance to the undisturbed portion of the aquifer from the centerline of the well;
 H = length of water column in the well;
 b = hydrologic unit thickness; and
 L = length of screened interval.

Because y and t are the only variables in Equation (4), a plot of $\ln y_t$ versus t semilogarithmic paper may be used to determine $[\ln(y_o/y_t)]/t$. The straight line through the data points can also

be used to select two values of y , namely y_0 and y_t , along the time interval t for substitution into Equation (4). Because drawdown of the groundwater table around the well increases exponentially and time increases linearly as the test progresses, the points begin to deviate from the straight line for large t and small y . Thus, only the linear portion of the curve should be used to evaluate $[\ln(y_0/y_t)]/t$ for the calculation of K using Equation (4) (Bouwer, 1989).

D.4 SLUG TEST RESULTS

The slug test data for the rising-head (withdrawal of the slug) tests are presented in this section. Only data from the rising-head tests were analyzed by the Bouwer and Rice method to calculate the hydraulic conductivity because the monitoring wells were screened in unconfined conditions. The falling-head test performed on an unconfined aquifer produces erroneous results due to the drainage of water into the unsaturated zone above the water table. Thus, the falling-head tests are invalid in monitoring wells screened in unconfined conditions. The graphs illustrating the plotted displacement values versus time for the rising-head tests are presented in this section. The well construction data used for the slug test analysis are presented in Table D.1. The computed hydraulic conductivity values for the monitoring wells, MW201B and MW202B at IRP Site No. 2, are presented in Table D.2.

The saturated thickness of the hydrologic unit was assumed to be equal to the saturated thickness of the screened interval although the observed saturated thickness of the hydrologic unit observed during drilling was approximately 18 feet. The depth to water encountered during drilling was approximately equal to the depth to the static water table. The hydraulic conductivity (K) ratio (vertical K /horizontal K) was assumed to be equal to 0.1.

The average hydraulic conductivity value at IRP Site No. 2 is 4.24 feet per day (ft/day) (31.7 gallons per day per square feet (gpd/ft²)).

Table D.1

Well Construction Data for Slug Tested Monitor Wells

Monitor Well Identifier	Borehole Diameter (inches)	Total Depth of Well (ft. TOC)	Depth to Water (ft. TOC)	Height of Water in Well (feet)	Well Casing Diameter (inches)	Screened Interval (ft. BLS)	Saturated Thickness of Screened Interval (feet)
MW201B	8	27.20	12.78	14.42	2	16 - 26	10
MW202B	8	27.40	6.78	20.62	2	14.7 - 24.7	10

BLS: Below land surface

BTOC: Below top of casing
ft.: Feet

MW: Monitor Well

Table D.2
Slug Test Results, IRP Site No. 2
183rd Fighter Wing, Illinois ANG
Springfield, Illinois

Monitoring Well	Hydraulic Conductivity (ft/day)	Hydraulic Conductivity (gpd/ft ²)
MW201B	4.21	31.5
MW202B	4.27	31.9

ft/day – feet per day.

gpd/ft² – gallons per day per square feet.

D.4 REFERENCES

- Bouwer, H. and Rice, R. C., 1976. A Slug Test for Determining Hydraulic Conductivity of Unconfined Aquifers with Completely or Partially Penetrating Wells. American Geophysical Union Water Resources Research, Vol. 12, No. 3, p. 423-428.
- Bouwer, H., 1989. The Bouwer and Rice Slug Test – An Update. Ground Water, Vol. 27, No. 3, p. 304-309.
- Geraghty & Miller, Inc., 1991. AQTESOLV software package, Version 1.1, Geraghty & Miller, Inc., Reston, VA.

Rising Head Test for Monitor Well MW201B

SE1000C

Environmental Logger	0.0933	1.476	0.2566	1.360	0.7666	1.216	8.0000	0.220
12/18 17:16	0.0966	1.476	0.2600	1.360	0.7833	1.213	8.2000	0.210
	0.1000	1.470	0.2633	1.357	0.8000	1.206	8.4000	0.204
Unit# 00852 Test 1	0.1033	1.470	0.2666	1.354	0.8166	1.203	8.6000	0.197
	0.1066	1.470	0.2700	1.354	0.8333	1.197	8.8000	0.188
Setups: INPUT 1	0.1100	1.467	0.2733	1.351	0.8500	1.191	9.0000	0.185
-----	0.1133	1.467	0.2766	1.348	0.8666	1.184	9.2000	0.175
Type Level (F)	0.1166	1.464	0.2800	1.345	0.8833	1.181	9.4000	0.172
Mode TOC	0.1200	1.464	0.2833	1.341	0.9000	1.175	9.6000	0.166
I.D. 20122	0.1233	1.461	0.2866	1.341	0.9166	1.172	9.8000	0.163
	0.1266	1.461	0.2900	1.341	0.9333	1.165	10.0000	0.153
Reference 0.000	0.1300	1.458	0.2933	1.338	0.9500	1.159	12.0000	0.116
Linearity 0.040	0.1333	1.454	0.2966	1.338	0.9666	1.156	14.0000	0.091
Scale factor 9.920	0.1366	1.451	0.3000	1.338	0.9833	1.150	16.0000	0.072
Offset 0.020	0.1400	1.451	0.3033	1.335	1.0000	1.143	18.0000	0.059
Delay mSEC 50.000	0.1433	1.448	0.3066	1.335	1.2000	1.068	20.0000	0.050
	0.1466	1.448	0.3100	1.335	1.4000	1.005	22.0000	0.044
Step 0 12/18 12:01:15	0.1500	1.448	0.3133	1.335	1.6000	0.952	24.0000	0.037
	0.1533	1.445	0.3166	1.335	1.8000	0.902	26.0000	0.034
Elapsed Time INPUT 1	0.1566	1.476	0.3200	1.335	2.0000	0.854	28.0000	0.031
-----	0.1600	1.489	0.3233	1.338	2.2000	0.810	30.0000	0.031
0.0000 1.577	0.1633	1.486	0.3266	1.341	2.4000	0.770	32.0000	0.028
0.0033 1.577	0.1666	1.495	0.3300	1.338	2.6000	0.729	34.0000	0.031
0.0066 1.583	0.1700	1.498	0.3333	1.338	2.8000	0.694	36.0000	0.031
0.0100 1.590	0.1733	1.467	0.3500	1.332	3.0000	0.656	38.0000	0.028
0.0133 1.583	0.1766	1.624	0.3666	1.329	3.2000	0.625		
0.0166 1.577	0.1800	1.473	0.3833	1.326	3.4000	0.594		
0.0200 1.574	0.1833	1.363	0.4000	1.319	3.6000	0.565		
0.0233 1.571	0.1866	1.395	0.4166	1.316	3.8000	0.537		
0.0266 1.574	0.1900	1.401	0.4333	1.310	4.0000	0.512		
0.0300 1.571	0.1933	1.404	0.4500	1.307	4.2000	0.490		
0.0333 1.564	0.1966	1.401	0.4666	1.301	4.4000	0.465		
0.0366 1.558	0.2000	1.401	0.4833	1.297	4.6000	0.446		
0.0400 1.549	0.2033	1.401	0.5000	1.291	4.8000	0.424		
0.0433 1.542	0.2066	1.411	0.5166	1.288	5.0000	0.405		
0.0466 1.536	0.2100	1.407	0.5333	1.285	5.2000	0.389		
0.0500 1.533	0.2133	1.423	0.5500	1.282	5.4000	0.370		
0.0533 1.533	0.2166	1.395	0.5666	1.275	5.6000	0.355		
0.0566 1.530	0.2200	1.385	0.5833	1.272	5.8000	0.339		
0.0600 1.524	0.2233	1.373	0.6000	1.266	6.0000	0.326		
0.0633 1.514	0.2266	1.373	0.6166	1.263	6.2000	0.311		
0.0666 1.508	0.2300	1.373	0.6333	1.256	6.4000	0.298		
0.0700 1.495	0.2333	1.370	0.6500	1.253	6.6000	0.289		
0.0733 1.489	0.2366	1.370	0.6666	1.247	6.8000	0.276		
0.0766 1.486	0.2400	1.367	0.6833	1.244	7.0000	0.264		
0.0800 1.486	0.2433	1.367	0.7000	1.238	7.2000	0.254		
0.0833 1.486	0.2466	1.367	0.7166	1.232	7.4000	0.245		
0.0866 1.483	0.2500	1.363	0.7333	1.228	7.6000	0.235		
0.0900 1.483	0.2533	1.363	0.7500	1.222	7.8000	0.226		

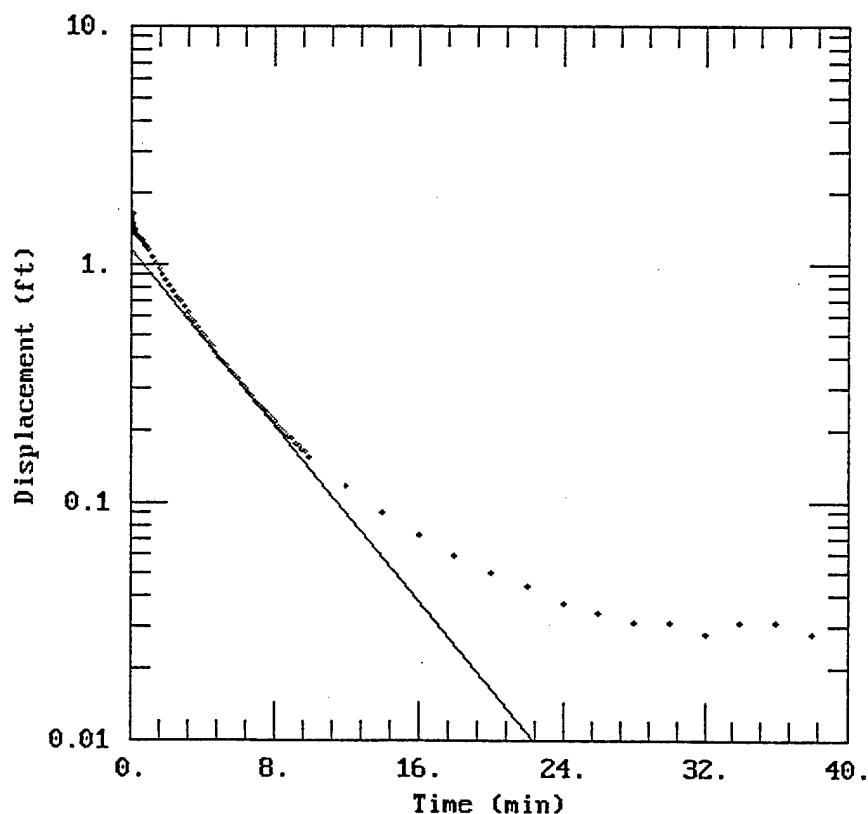
CLIENT: ANGRC/CEVR

COMPANY: Operational Technologies Corp.

LOCATION: Springfield, Illinois

PROJECT: 1315-269/4A

Rising Head Test for MW201B



DATA SET:
MW201B.DAT
01/02/97

AQUIFER MODEL:
Unconfined
SOLUTION METHOD:
Bouwer-Rice

TEST DATA:
 $H_0 = 1.59$ ft
 $r_c = 0.083$ ft
 $r_w = 0.67$ ft
 $L = 10.$ ft
 $b = 10.$ ft
 $H = 10.$ ft

PARAMETER ESTIMATES:
 $K = 4.206$ ft/day
 $y_0 = 1.157$ ft

AQTESOLU

Rising Head Test for Monitor Well MW202B

SE1000C									
Environmental Logger		0.0933	1.643	0.2566	1.574	0.7666	1.372	8.0000	0.274
12/18 17:21		0.0966	1.636	0.2600	1.570	0.7833	1.363	8.2000	0.258
		0.1000	1.640	0.2633	1.570	0.8000	1.360	8.4000	0.255
Unit# 00852 Test 3		0.1033	1.640	0.2666	1.567	0.8166	1.353	8.6000	0.239
		0.1066	1.640	0.2700	1.564	0.8333	1.347	8.8000	0.233
Setups: INPUT 1		0.1100	1.636	0.2733	1.564	0.8500	1.341	9.0000	0.223
-----		0.1133	1.636	0.2766	1.564	0.8666	1.334	9.2000	0.217
Type	Level (F)	0.1166	1.633	0.2800	1.564	0.8833	1.334	9.4000	0.207
Mode	TOC	0.1200	1.630	0.2833	1.567	0.9000	1.325	9.6000	0.198
I.D.	20222	0.1233	1.627	0.2866	1.564	0.9166	1.322	9.8000	0.192
		0.1266	1.627	0.2900	1.561	0.9333	1.319	10.0000	0.185
Reference	0.000	0.1300	1.627	0.2933	1.558	0.9500	1.312	12.0000	0.179
Linearity	0.040	0.1333	1.627	0.2966	1.555	0.9666	1.306	14.0000	0.122
Scale factor	9.920	0.1366	1.624	0.3000	1.552	0.9833	1.297	16.0000	0.094
Offset	0.020	0.1400	1.621	0.3033	1.552	1.0000	1.293	18.0000	0.081
Delay mSEC	50.000	0.1433	1.614	0.3066	1.555	1.2000	1.218	20.0000	0.056
		0.1466	1.605	0.3100	1.555	1.4000	1.164	22.0000	0.050
Step 0	12/18 15:21:38	0.1500	1.621	0.3133	1.552	1.6000	1.108	24.0000	0.053
		0.1533	1.624	0.3166	1.552	1.8000	1.051	26.0000	0.034
Elapsed Time INPUT		0.1566	1.624	0.3200	1.548	2.0000	1.004	28.0000	0.031
-----		0.1600	1.624	0.3233	1.545	2.2000	0.957	30.0000	0.028
0.0000	1.693	0.1633	1.614	0.3266	1.542	2.4000	0.909	32.0000	0.025
0.0033	1.677	0.1666	1.608	0.3300	1.542	2.6000	0.872	34.0000	0.028
0.0066	1.677	0.1700	1.605	0.3333	1.542	2.8000	0.831	36.0000	0.044
0.0100	1.687	0.1733	1.605	0.3500	1.533	3.0000	0.793	38.0000	0.022
0.0133	1.699	0.1766	1.608	0.3666	1.526	3.2000	0.755	40.0000	0.009
0.0166	1.706	0.1800	1.608	0.3833	1.517	3.4000	0.724	42.0000	0.025
0.0200	1.699	0.1833	1.608	0.4000	1.514	3.6000	0.692	44.0000	0.012
0.0233	1.684	0.1866	1.605	0.4166	1.504	3.8000	0.658	46.0000	0.022
0.0266	1.674	0.1900	1.599	0.4333	1.495	4.0000	0.632	48.0000	0.009
0.0300	1.671	0.1933	1.596	0.4500	1.495	4.2000	0.601	50.0000	0.019
0.0333	1.674	0.1966	1.596	0.4666	1.482	4.4000	0.579	52.0000	0.009
0.0366	1.684	0.2000	1.596	0.4833	1.476	4.6000	0.554		
0.0400	1.687	0.2033	1.596	0.5000	1.473	4.8000	0.529		
0.0433	1.677	0.2066	1.596	0.5166	1.463	5.0000	0.503		
0.0466	1.671	0.2100	1.592	0.5333	1.457	5.2000	0.484		
0.0500	1.662	0.2133	1.589	0.5500	1.451	5.4000	0.462		
0.0533	1.662	0.2166	1.586	0.5666	1.448	5.6000	0.444		
0.0566	1.665	0.2200	1.586	0.5833	1.438	5.8000	0.425		
0.0600	1.671	0.2233	1.586	0.6000	1.432	6.0000	0.406		
0.0633	1.659	0.2266	1.586	0.6166	1.429	6.2000	0.393		
0.0666	1.665	0.2300	1.586	0.6333	1.419	6.4000	0.377		
0.0700	1.652	0.2333	1.586	0.6500	1.416	6.6000	0.362		
0.0733	1.649	0.2366	1.583	0.6666	1.407	6.8000	0.346		
0.0766	1.646	0.2400	1.580	0.6833	1.404	7.0000	0.330		
0.0800	1.649	0.2433	1.577	0.7000	1.397	7.2000	0.318		
0.0833	1.649	0.2466	1.577	0.7166	1.388	7.4000	0.302		
0.0866	1.652	0.2500	1.574	0.7333	1.382	7.6000	0.292		
0.0900	1.649	0.2533	1.574	0.7500	1.378	7.8000	0.283		

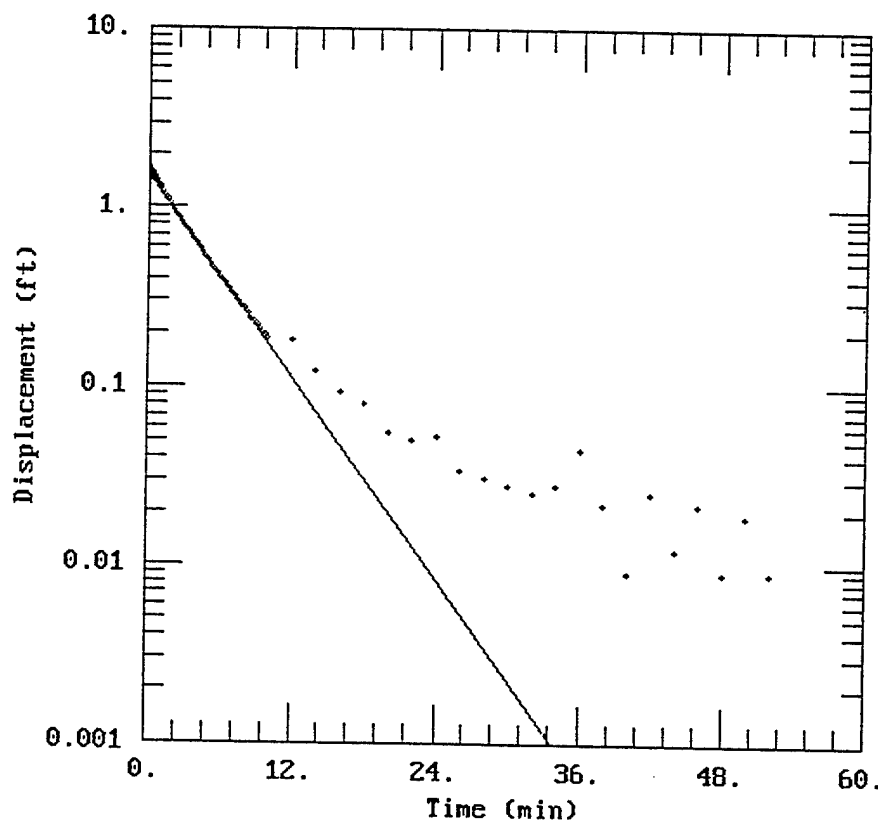
CLIENT: ANGRC/CEVR

COMPANY: Operational Technologies Corp.

LOCATION: Springfield, Illinois

PROJECT: 1315-269/4A

Rising Head Test for MW202B



DATA SET:
MW202B.DAT
01/02/97

AQUIFER MODEL:
Unconfined
SOLUTION METHOD:
Bouwer-Rice

TEST DATA:
 $H_0 = 1.671$ ft
 $r_c = 0.083$ ft
 $r_w = 0.67$ ft
 $L = 10.$ ft
 $b = 10.$ ft
 $H = 10.$ ft

PARAMETER ESTIMATES:
 $K = 4.274$ ft/day
 $y_0 = 1.492$ ft

AQTESOLV

APPENDIX E
FIELD GAS CHROMATOGRAPH SCREENING RESULTS

Table E.1
183rd Fighter Wing, Illinois Air National Guard
Capital Municipal Airport, Springfield, Illinois

Boring	Sample Interval (ft. BLS)	Sample Mass (grams)	Concentrations (ppb)									
			Vinyl Chloride	cis-1,2-DCE	1,2-DCA	Benzene	TCE	Toluene	PCE	Ethylbenzene	m,p-Xylene	o-Xylene
100 PPB	-	-	100	100	100	100	100	100	100	100	200	100
1 PPM	-	-	1,000	-	1,000	1,000	1,000	1,000	1,000	1,000	2,000	1,000
10 PPM	-	-	10,000	-	10,000	10,000	10,000	10,000	10,000	10,000	20,000	10,000
Air Blank-1	-	-	12	25	3	8	4	12	13	30	40	1
Air Blank-2	-	-	12	35	ND	3	1	3	3	7	9	ND
Air Blank-3	-	-	8	20	ND	ND	ND	ND	ND	1	1	ND
Air Blank-4	-	-	20	NA	21	22	25	29	20	39	53	1
Air Blank-5	-	-	16	NA	19	4	ND	1	1	2	3	ND
Air Blank-6	-	-	10	NA	ND	ND	ND	ND	ND	ND	ND	ND
Air Blank-7	-	-	7	NA	ND	ND	ND	ND	ND	ND	ND	ND
MW-201B	0.0 - 0.5	10	17	NA	22	7	1	ND	ND	ND	1	ND
MW-201B	5.0 - 7.0	10	21	NA	36	14	16	11	7	4	6	ND
MW-201B	10.0 - 12.0	10	23	NA	26	ND	2	ND	ND	ND	ND	ND
100 PPB	-	-	100	NA	130	104	106	112	101	105	158	24
RECAL	-	-	100	NA	100	100	100	100	100	100	200	100
Air Blank-8	-	-	10	NA	ND	ND	ND	ND	ND	ND	ND	ND
MW-201B	15.0 - 17.0	10	11	NA	ND	ND	ND	ND	ND	ND	ND	ND
MW-201B	20.0 - 22.0	10	14	NA	ND	ND	ND	ND	ND	ND	ND	ND
MW-201B	25.0 - 26.5	10	13	NA	9	ND	ND	ND	ND	ND	ND	ND

Table E.1 (Concluded)
183rd Fighter Wing, Illinois Air National Guard
Capital Municipal Airport, Springfield, Illinois

Boring	Sample Interval (ft. BLS)	Sample Mass (grams)	Concentrations (ppb)									
			Vinyl Chloride	cis-1,2- DCE	1,2- DCA	Benzene	TCE	Toluene	PCE	Ethyl- benzene	m,p- Xylene	o- Xylene
MW-202B	0.0 - 2.0	10	15	NA	10	ND	ND	ND	ND	ND	ND	ND
MW-202B	5.0 - 7.0	10	17	NA	7	ND	20	87	251	443	70	515
1 PPM	-	-	984	NA	1,230	977	980	965	982	1,000	1,980	883
RECAL	-	-	1,000	NA	1,000	1,000	1,000	1,000	1,000	1,000	2,000	1,000
Air Blank-9	-	-	14	NA	7	5	2	1	2	5	9	ND
Air Blank-10	-	-	10	NA	ND	ND	ND	ND	ND	ND	ND	ND
MW-202B RESHOT	5.0 - 7.0	10	19	NA	ND	29	55	156	655	1,290	253	1,990
MW-202B	10.0 - 12.0	10	23	NA	13	8	16	20	16	10	ND	ND
MW-202B	15.0 - 17.0	10	37	NA	39	10	31	45	49	30	ND	20
MW-202B	20.0 - 22.0	10	18	NA	2	ND	ND	ND	ND	1	ND	ND
MW-202B	25.0 - 26.0	10	21	NA	5	ND	ND	ND	ND	ND	ND	ND
10 PPB	-	-	35	NA	34	19	28	22	18	11	27	8
100 PPB	-	-	108	NA	91	94	89	82	81	82	168	138

ppb/PPB - parts per billion.
ppm/PPM - parts per million.
ft. BLS - Feet below land surface.
MW - Monitor well.

RECAL - Recalibrate.
NA - cis-1,2-DCE was erased from the library of the field GC.
ND - Non detect.

FIELD GC DATA SUMMARY

SITE: Aliso ANGB GAIN: 1000
 CARRIER GAS FLOW: 8.5 ml/min INJECTION VOLUME: 100 nl
 GC OVEN TEMP: 50°C ANALYSIS TIME: 600 sec

Analysis No.	Boring	Sample Interval (ft. BLS)	Sample Mass (grams)	Concentrations (ppb)									
				Vinyl Chloride	cis-1,2-DCE	1,2-DCA	Benzene	TCE	Toluene	PCE	Ethylbenzene	m,p-Xylene	o-Xylene
2	100 PPB	—	—	100	100	100	100	100	100	100	100	200	100
3	1 PPM	—	—	1000	—	4000	4000	4000	1000	1000	1000	2000	1000
4	10 PPM	—	—	10000	—	10000	10000	10000	10000	10000	10000	20000	20000
5	AIR BLANK-1	—	—	12	25	3	8	4	12	13	30	40	1
8	AIR BLANK-2	—	—	12	35	ND	3	1	3	3	7	9	ND
9	AIR BLANK-3	—	—	8	20	ND	ND	ND	ND	ND	1	1	ND
10	AIR BLANK-4	—	—	20	ERASED FROM MEASUREMENT	21	22	25	29	20	39	53	1
11	AIR BLANK-5	—	—	16	—	19	4	ND	1	1	2	3	ND
12	AIR BLANK-6	—	—	10	—	ND	ND	ND	ND	ND	ND	ND	ND
13	AIR BLANK-7	—	—	7	—	ND	ND	ND	ND	ND	ND	ND	ND
14	MW-201B	0.0-0.5	10	17	—	22	7	1	ND	ND	ND	1	ND
15	MW-201B	5.0-7.0	10	21	—	36	14	16	11	7	4	6	ND
16	MW-201B	10.0-12.0	10	23	—	26	ND	2	ND	ND	ND	ND	ND
17	100 PPB	—	—	100	—	130	104	106	112	101	105	158	24
	RECAL	—	—	100	—	100	100	100	100	100	100	200	100
18	AIR BLANK-8	—	—	10	—	ND	ND	ND	ND	ND	ND	ND	ND
19	MW-201B	15.0-17.0	10	11	—	ND	ND	ND	ND	ND	ND	ND	ND
20	MW-201B	20.0-22.0	10	14	—	ND	ND	ND	ND	ND	ND	ND	ND
21	MW-201B	25.0-26.5	10	13	—	9	ND	ND	ND	ND	ND	ND	ND
22	MW-202B	0.0-2.0	10	15	—	10	ND	ND	ND	ND	ND	ND	ND

DATE: 12 Dec 96

OPERATOR: gbyrd

(2)

Calibration Information		Analytes									
		Vinyl Chloride	cis-1,2-DCE	1,2-DCA	Benzene	TCE	Toluene	PCE	Ethylbenzene	m,p-Xylene	o-Xylene
0.1 ppm	Retention Time	26.4	32.2	50.8	68.9	83.6	126.3	171.2	242.6	259.4	304
	Response	129	40	193	240	208	171	104	72	222	123
1 ppm	Retention Time	26.8		49.4	66.2	80.9	124.0	168.8	236.6	257.0	297.6
	Response	2593		1541	3548	3087	1682	3111	1483	2109	478
10 ppm	Retention Time	27.9		50.1	63.7	81.6	124.9	169.6	240.8	257.0	298.6
	Response	13054		11650	17844	24629	21795	25614	6592	38828	3309

OPERATOR: J. Byrd DATE: 12 Dec 96

SITE: S. Lines AN613
CARRIER GAS FLOW: 8.5 ml/min
GC OVEN TEMP: 50°C
GAIN: 1000
INJECTION VOLUME: 100 µl
ANALYSIS TIME: 350

GAIN: 1000
INJECTION VOLUME: 1000
ANALYSIS TIME: 350

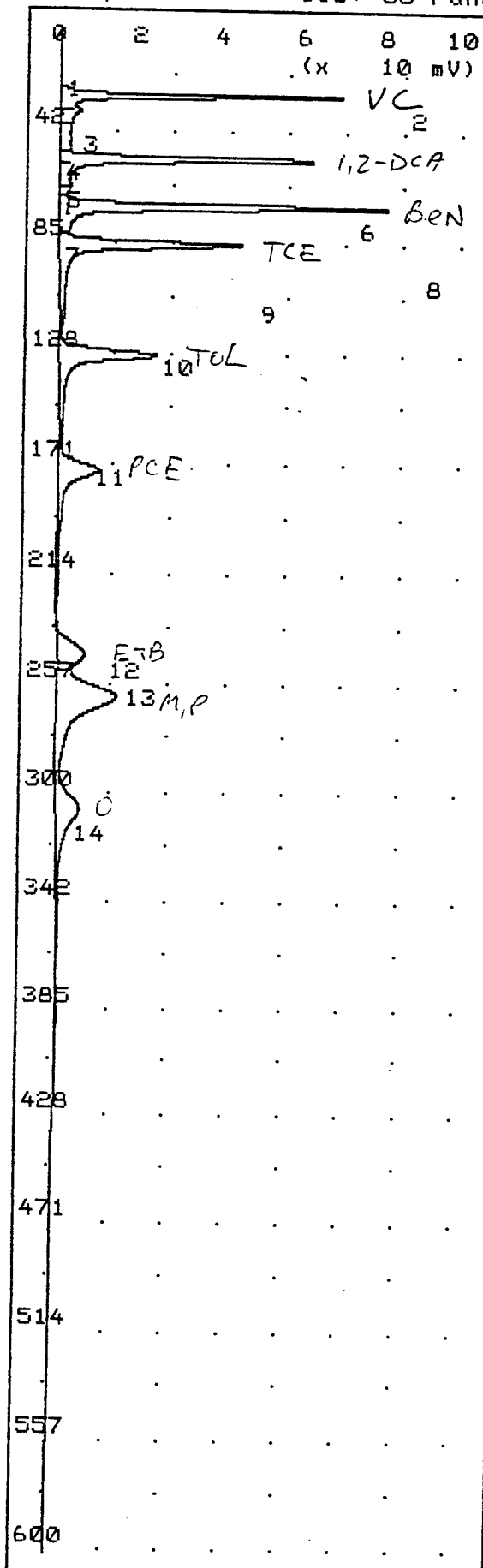
SITE: Alvarado Ave 6B
CARRIER GAS FLOW: 8.5 cc/min
GC OVEN TEMP: 50°C

[illegible]

OPERATOR: J. Burdette

DATE: 12 Dec 96

Analysis #2 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 08:06
Sample Time: Dec 12, 96 07:56
Method

Slope Up 0.500 mV/Sec
Slope Down 1.500 mV/Sec
Min Area 0.000 mVSec
Min Height 0.000 mV
Analysis Delay 0.0 sec
Window Percent 10.0 %
Det Flow 9 ml/min
B/F Flow 9 ml/min
Aux Flow 0 ml/min
Oven Temp 50 C
Amb Temp 35 C
Max Gain 1000
Analysis Time 600.0 sec

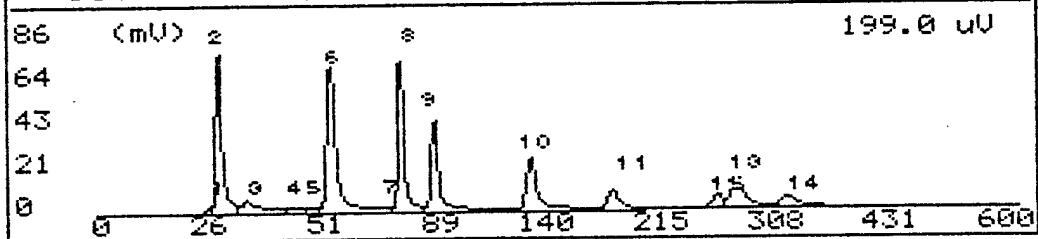
Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	Unknown	5.426 mVS	24.2
2	Unknown VC	129.4 mVS	26.4
3	Unknown 1,2-DCA	40.15 mVS	32.2
4	Unknown	11.51 mVS	42.6
5	Unknown	7.617 mVS	47.1
6	Unknown 1,2-DCA	192.5 mVS	50.8
7	Unknown	1.328 mVS	61.6
8	Unknown BEN	240.1 mVS	68.9
9	Unknown TCE	208.9 mVS	83.6
10	Unknown TOL	170.8 mVS	126.2
11	Unknown PCE	103.5 mVS	171.2
12	Unknown E-B	72.14 mVS	242.6
13	Unknown M,P	221.9 mVS	259.4
14	Unknown O	123.0 mVS	304.0

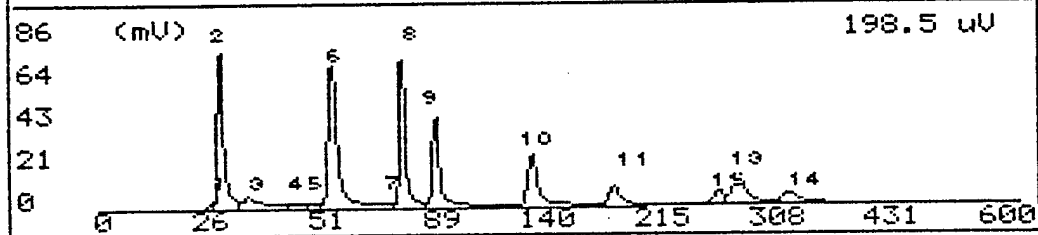
Notes

Illinois ANGB
Capital Airport
Joe Byrd, Jr.
OpTech
100 ppb standard

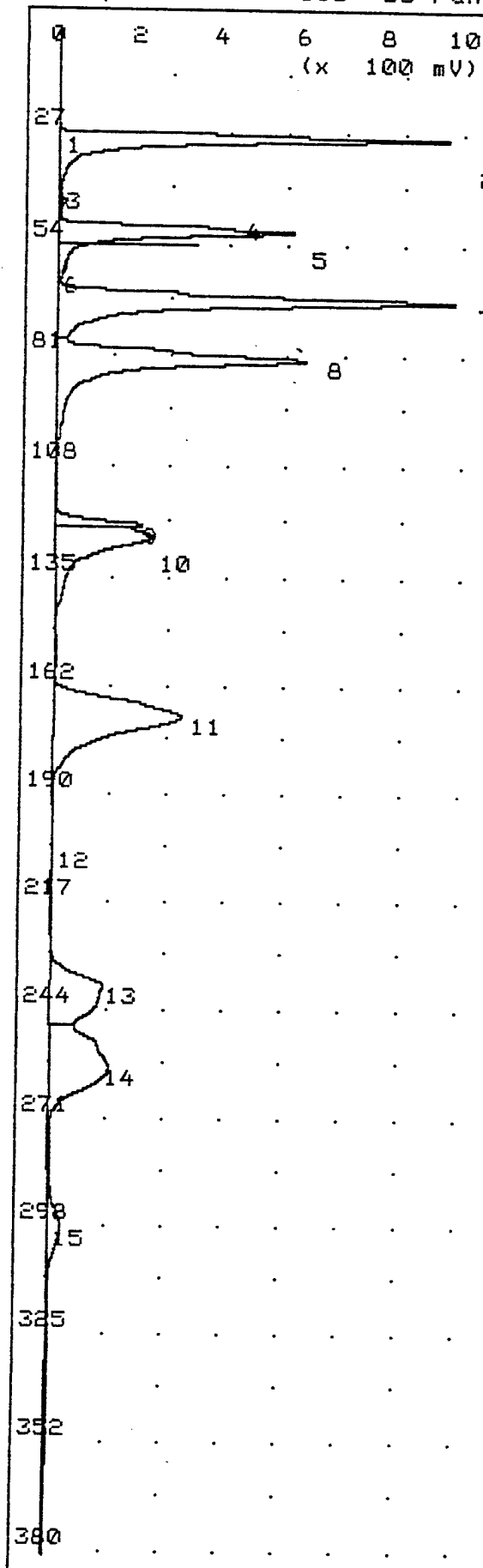
G.C. Ready		10S+ GC Function	Dec 12, 96	08:19
-- Analysis No 2		-- Run at -	Dec 12, 96	07:56 -
Pk No	Name	Conc/Area	Alarm	Ret. Time
1	Unknown	5.426 mUS	-No-	24.2 sec
2	vinyl chloride	100.0 ppb	-No-	25.4 sec
3	cis-1,2-dce	100.0 ppb	-No-	27.2 sec
4	Unknown	11.51 mUS	-No-	27.6 sec
5	Unknown	7.617 mUS	-No-	27.1 sec
6	1,2-dca	100.0 ppb	-No-	50.0 sec
7	Unknown	1.320 mUS	-No-	61.0 sec
8	benzene	100.0 ppb	-No-	60.0 sec
9	tce	100.0 ppb	-No-	60.6 sec
- Detected 14 peaks. Use + + to scroll [605 sec]				



G.C. Ready		10S+ GC Function		Dec 12, 96 08:20	
-- Analysis No 2		-- Run at -		Dec 12, 96 07:56 -	
Pk No	Name	Conc/Area	Alarm	Ret. Time	
6	1,2-dca	100.0 ppb	-No-	50.0	sec
7	Unknown	1.320 mUS	-No-	61.0	sec
8	benzene	100.0 ppb	-No-	60.0	sec
9	tce	100.0 ppb	-No-	60.6	sec
10	toluene	100.0 ppb	-No-	140.0	sec
11	pce	100.0 ppb	-No-	171.2	sec
12	ethylbenzene	100.0 ppb	-No-	242.0	sec
13	m,p-xylene	200.0 ppb	-No-	249.4	sec
14	o-xylene	100.0 ppb	-No-	304.0	sec
- Detected 14 peaks. Use + + to scroll [605 sec]					



Analysis #3 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 08:29
Sample Time: Dec 12, 96 08:23

Method

Slope Up 0.500 mV/Sec
Slope Down 1.500 mV/Sec
Min Area 0.000 mVSec
Min Height 0.000 mV
Analysis Delay 0.0 sec
Window Percent 10.0 %
Det Flow 9 ml/min
B/F Flow 9 ml/min
Aux Flow 0 ml/min
Oven Temp 50 C
Amb Temp 35 C
Max Gain 1000
Analysis Time 380.0 sec

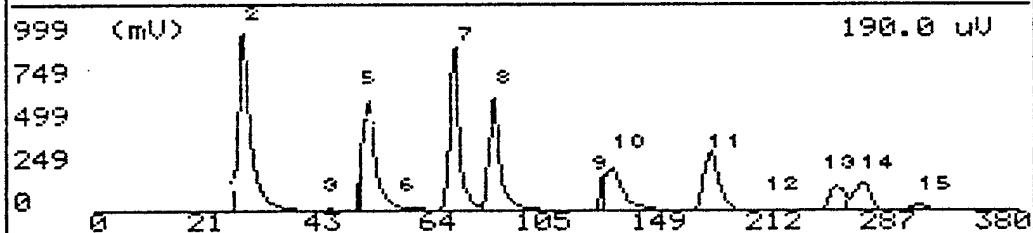
Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	Unknown	7.169 mVS	24.2
2	vinyl chloride	2.003 ppm	26.8
3	Unknown	19.80 mVS	42.2
4	Unknown	314.6 mVS	48.2
5	1,2-dca	800.4 ppb	49.4
6	Unknown	10.00 mVS	57.6
7	benzene	1.477 ppm	66.2
8	tce	1.477 ppm	80.9
9	Unknown	442.9 mVS	120.9
10	toluene	985.1 ppb	124.0
11	pce	3.003 ppm	168.8
12	Unknown	18.39 mVS	205.0
13	ethylbenzene	2.056 ppm	236.6
14	m, p-xylene	1.900 ppm	257.0
15	o-xylene	388.3 ppb	297.6

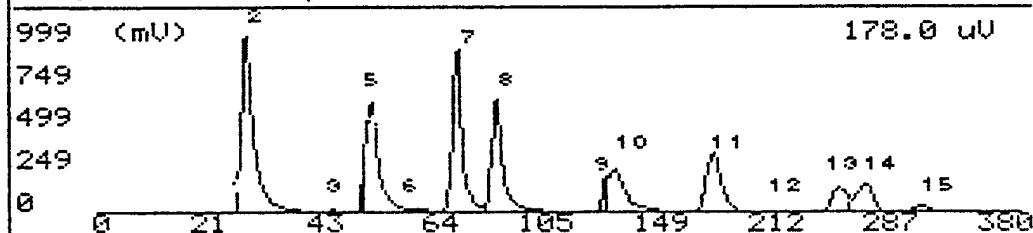
Notes

Illinois ANGB
Capital Airport
Joe Byrd, Jr.
OpTech
~~100 ppb~~ standard
1 PPM 93

G.C. Ready		10S+ GC Function		Dec 12, 96 08:37	
-- Analysis No 3		-- Run at -		Dec 12, 96 08:23 -	
Pk No	Name	Conc/Area	Alarm	Ret. Time	
1	Unknown	7.169 mUS	-No-	24.2 sec	
2	vinyl chloride	1.000 ppm	-No-	26.000 sec	
3	Unknown	19.80 mUS	-No-	42.000 sec	
4	Unknown	314.6 mUS	-No-	48.200 sec	
5	1,2-dca	1.000 ppm	-No-	49.4 sec	
6	Unknown	10.00 mUS	-No-	57.000 sec	
7	benzene	1.000 ppm	-No-	66.200 sec	
8	tce	1.000 ppm	-No-	80.000 sec	
9	Unknown	443.1 mUS	-No-	120.0 sec	
- Detected 15 peaks. Use + + to scroll [385 sec]					

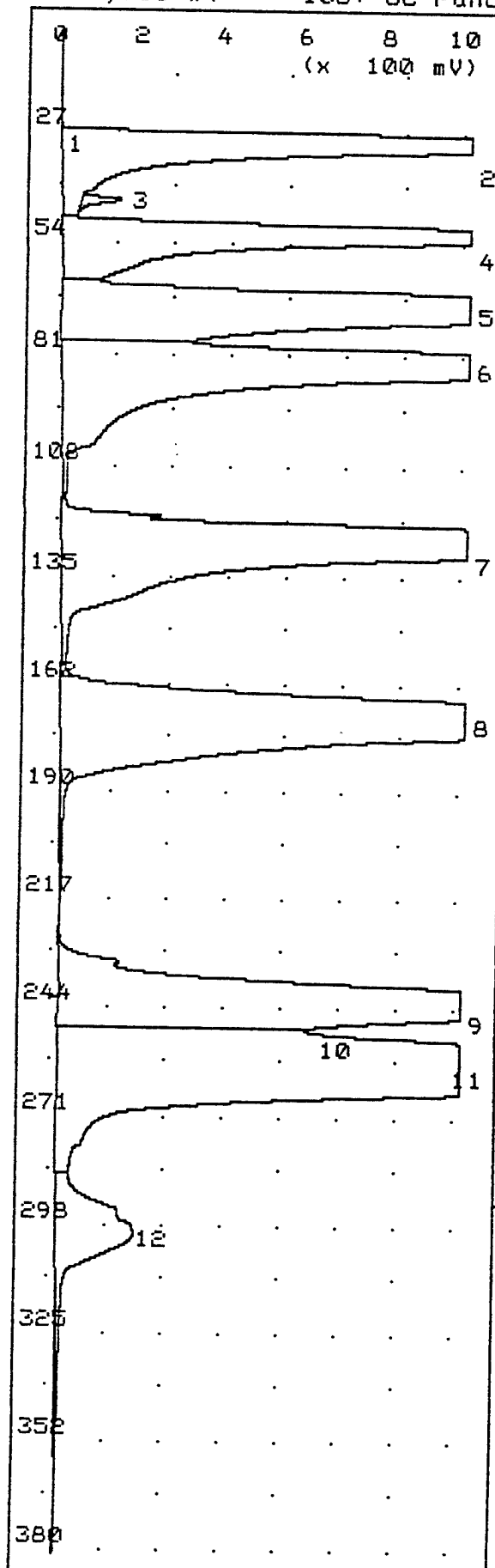


G.C. Ready		10S+ GC Function		Dec 12, 96 08:38	
-- Analysis No 3		-- Run at - Dec 12, 96		08:23 -	
Pk No	Name	Conc/Area	Alarm	Ret. Time	
7	benzene	1.000 ppm	-No-	66.2	sec
8	tce	1.000 ppm	-No-	80.0	sec
9	Unknown	443.1 mUS	-No-	120.0	sec
10	toluene	1.000 ppm	-No-	124.0	sec
11	pce	1.000 ppm	-No-	160.0	sec
12	Unknown	19.34 mUS	-No-	200.0	sec
13	ethylbenzene	1.000 ppm	-No-	236.0	sec
14	m,p-xylene	2.001 ppm	-No-	257.0	sec
15	o-xylene	1.009 ppm	-No-	297.0	sec
- Detected 15 peaks. Use + + to scroll [385 sec]					



Analysis #4

10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 08:48

Sample Time: Dec 12, 96 08:42

Method

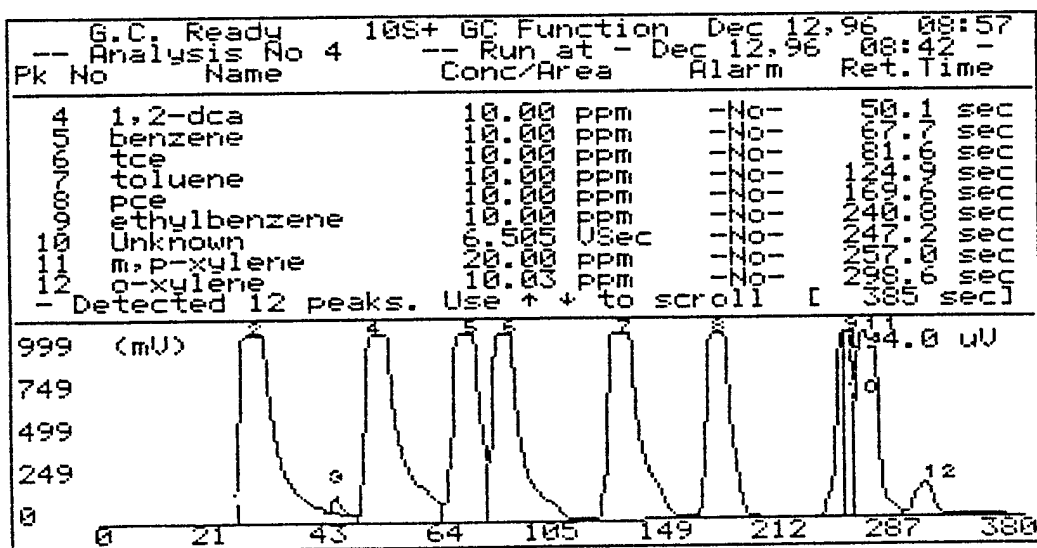
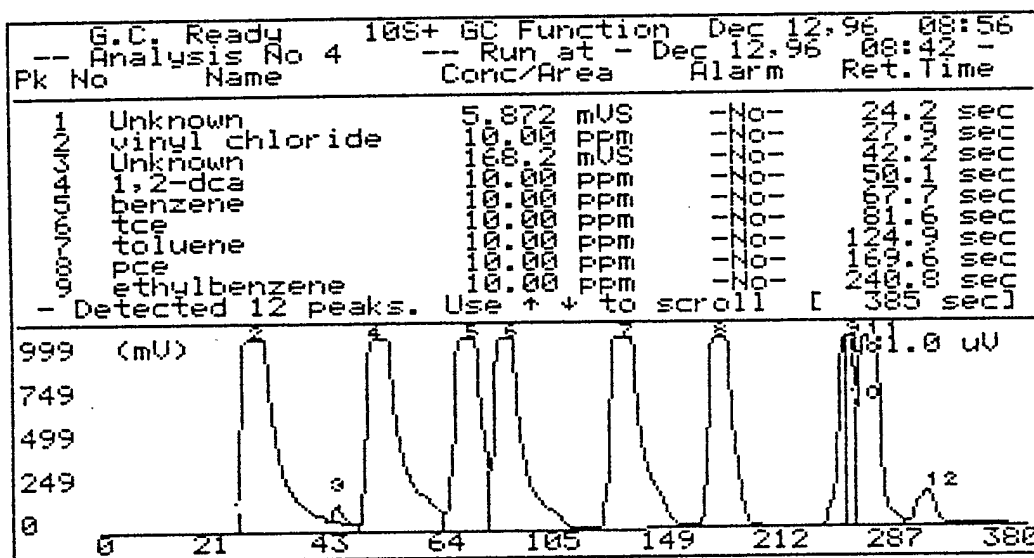
Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 35 C
 Max Gain 1000
 Analysis Time 380.0 sec

Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	Unknown	5.870 mVS	24.2
2	vinyl chloride	4.821 ppm	27.9
3	Unknown	168.2 mVS	42.2
4	1,2-dca	7.744 ppm	50.1
5	benzene	4.888 ppm	67.7
6	tce	7.735 ppm	81.6
7	toluene	12.97 ppm	124.9
8	pce	7.732 ppm	169.6
9	ethylbenzene	4.258 ppm	240.8
10	Unknown	6.504 VSec	247.2
11	m,p-xylene	37.01 ppm	257.0
12	o-xylene	8.180 ppm	298.6

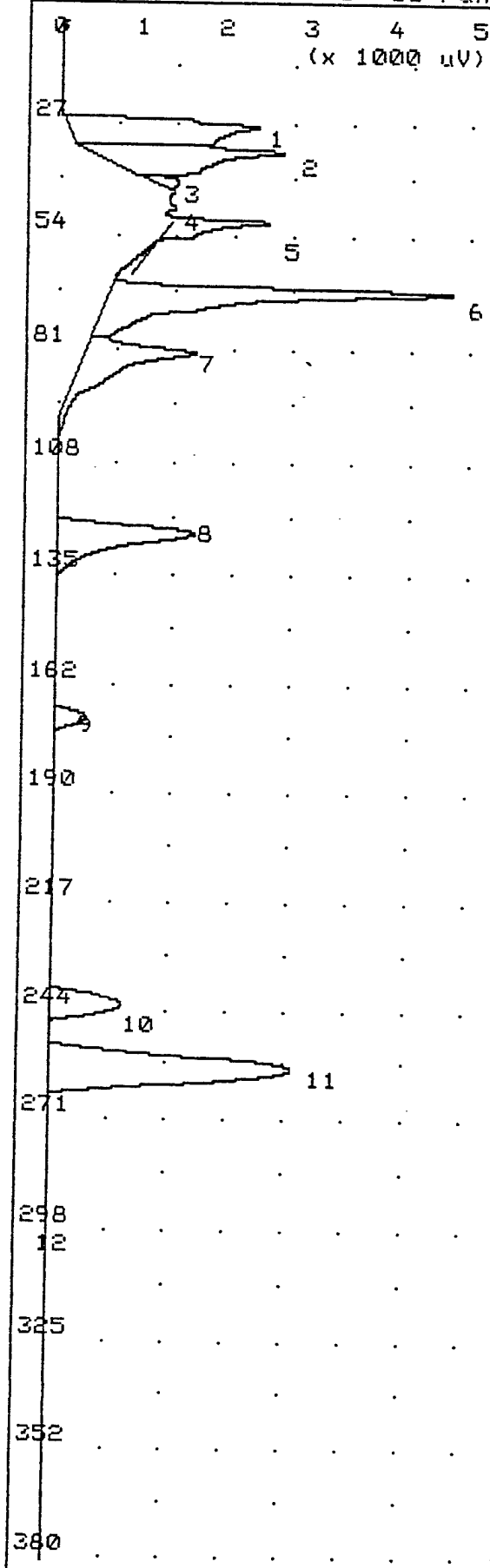
Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 10 ppm standard



Analysis #5

10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 09:05
Sample Time: Dec 12, 96 08:59

Method

Slope Up 0.500 mV/Sec
Slope Down 1.500 mV/Sec
Min Area 0.000 mVSec
Min Height 0.000 mV
Analysis Delay 0.0 sec
Window Percent 10.0 %
Det Flow 9 ml/min
B/F Flow 9 ml/min
Aux Flow 0 ml/min
Oven Temp 50 C
Amb Temp 36 C
Max Gain 1000
Analysis Time 380.0 sec

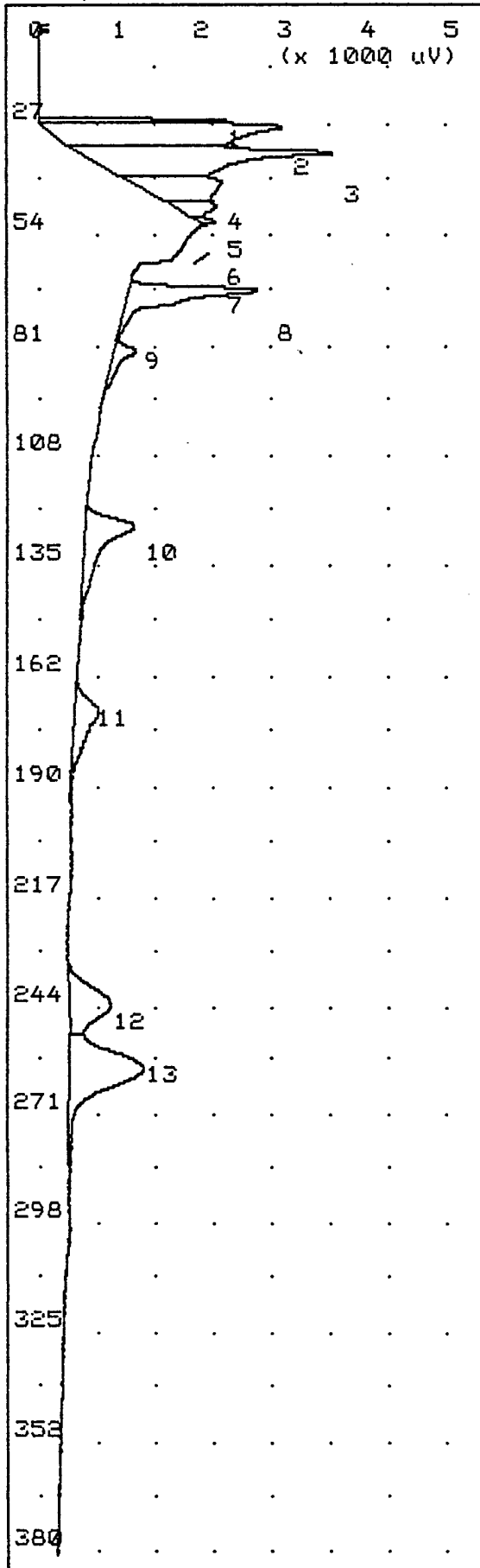
Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	vinyl chloride	12.09 ppb	26.0
2	cis-1,2-dce	25.26 ppb	32.2
3	Unknown	0.762 mVS	38.9
4	Unknown	0.081 mVS	45.9
5	1,2-dca	2.511 ppb	49.0
6	benzene	7.507 ppb	65.8
7	tce	4.451 ppb	80.4
8	toluene	12.33 ppb	124.0
9	pce	13.30 ppb	169.2
10	ethylbenzene	30.34 ppb	241.0
11	m,p-xylene	39.92 ppb	257.3
12	o-xylene	0.711 ppb	297.3

Notes

Illinois ANGB
Capital Airport
Joe Byrd, Jr.
OpTech
air blank- 1

Analysis #8 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 09:50
 Sample Time: Dec 12, 96 09:44
 Method
 Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 36 C
 Max Gain 1000
 Analysis Time 380.0 sec

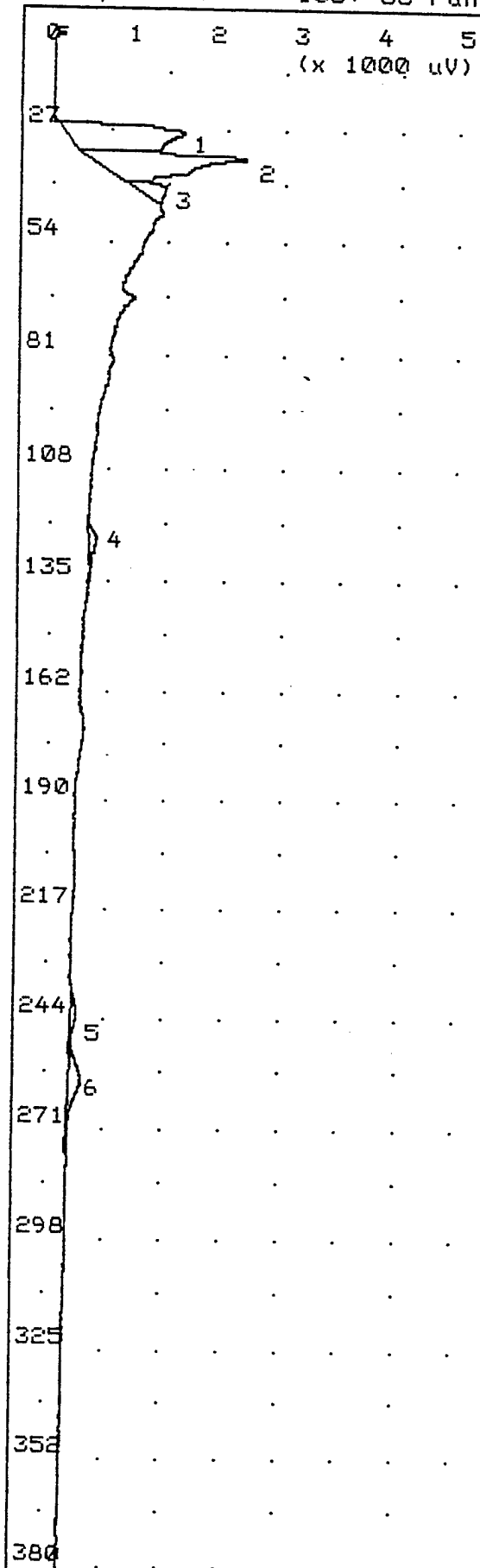
Peak Report			
Pk	Compound Name	Area/Conc	R. T.
1	Unknown	2.777 mVS	24.2
2	vinyl chloride	11.69 ppb	25.8
3	cis-1,2-dce	35.15 ppb	32.2
4	Unknown	5.692 mVS	39.4
5	Unknown	1.337 mVS	45.4
6	1,2-dca	0.146 ppb	49.0
7	Unknown	1.832 mVS	49.0
8	benzene	2.546 ppb	65.8
9	tce	0.662 ppb	80.6
10	toluene	2.958 ppb	124.5
11	pce	2.960 ppb	170.6
12	ethylbenzene	7.132 ppb	241.8
13	m,p-xylene	9.195 ppb	258.4

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 air blank- 2

Analysis #9

10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 10:13
Sample Time: Dec 12, 96 10:07
Method

Slope Up 0.500 mV/Sec
Slope Down 1.500 mV/Sec
Min Area 0.000 mVSec
Min Height 0.000 mV
Analysis Delay 0.0 sec
Window Percent 10.0 %
Det Flow 9 ml/min
B/F Flow 9 ml/min
Aux Flow 0 ml/min
Oven Temp 50 C
Amb Temp 35 C
Max Gain 1000
Analysis Time 380.0 sec

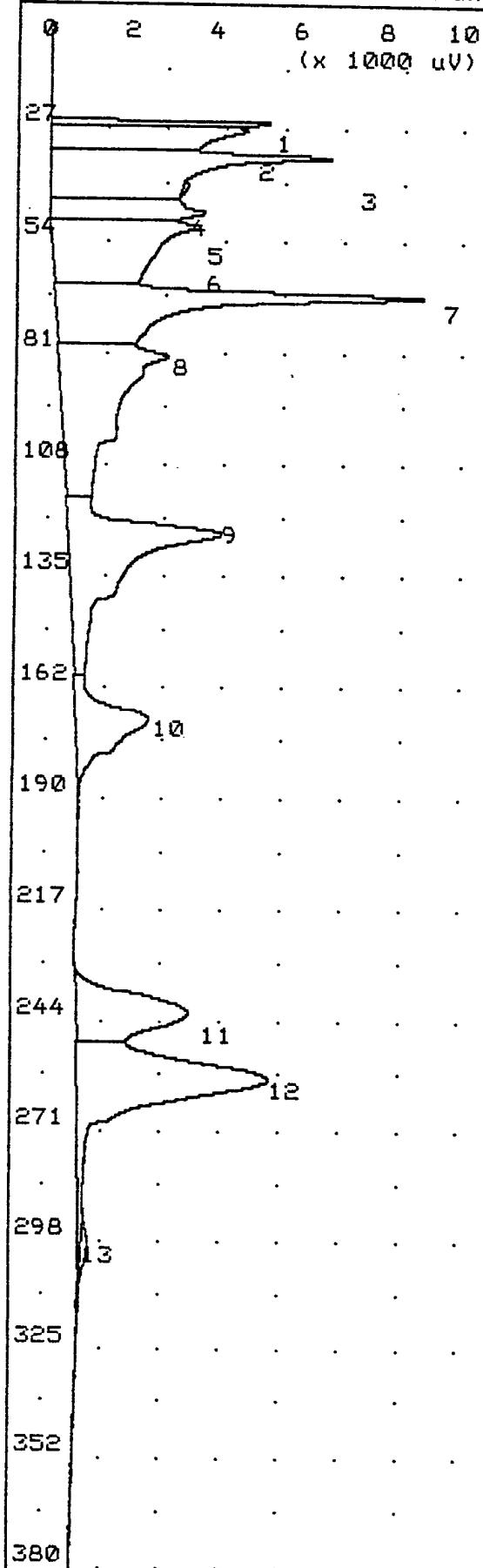
Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	vinyl chloride	7.617 ppb	26.1
2	Unknown	8.001 mVS	32.1
3	Unknown	1.250 mVS	39.2
4	toluene	0.442 ppb	123.2
5	ethylbenzene	0.690 ppb	241.6
6	m,p-xylene	1.218 ppb	256.0

Notes

Illinois ANGB
Capital Airport
Joe Byrd, Jr.
OpTech
air blank- 3

Analysis #10 10S+ GC Function Analysis Report



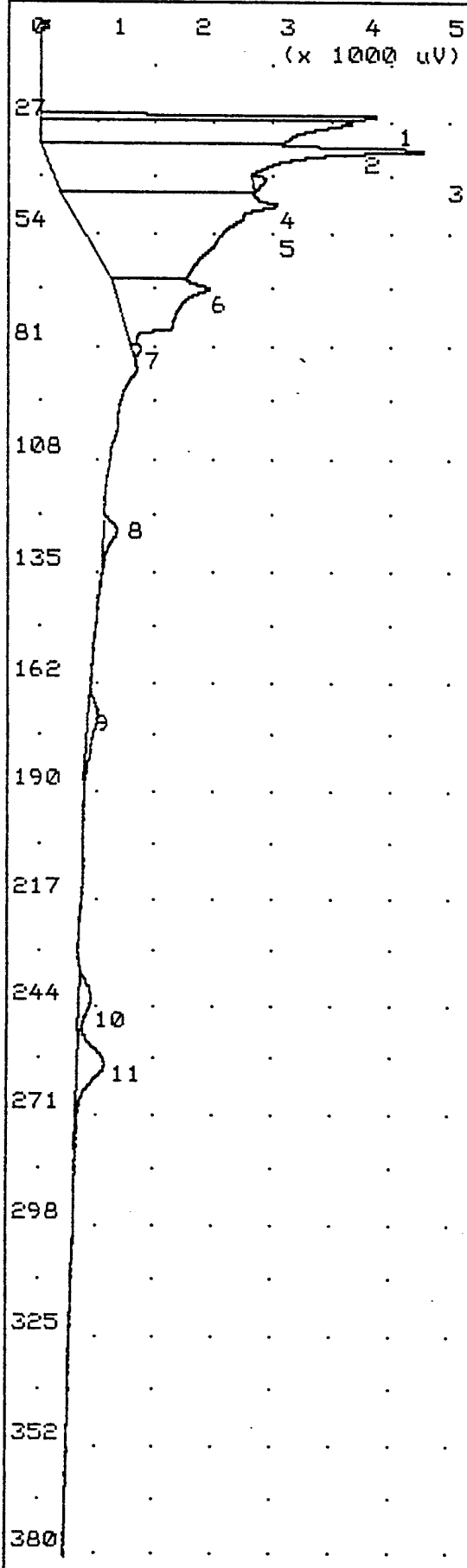
Time Printed: Dec 12, 96 10:25
Sample Time: Dec 12, 96 10:18
Method
Slope Up 0.500 mV/Sec
Slope Down 1.500 mV/Sec
Min Area 0.000 mVSec
Min Height 0.000 mV
Analysis Delay 0.0 sec
Window Percent 10.0 %
Det Flow 9 ml/min
B/F Flow 9 ml/min
Aux Flow 0 ml/min
Oven Temp 50 C
Amb Temp 35 C
Max Gain 1000
Analysis Time 380.0 sec

Peak Report			
Pk	Compound Name	Area/Conc	R.T.
1	Unknown	9.029 mVS	24.1
2	vinyl chloride	19.35 ppb	25.8
3	Unknown	49.75 mVS	32.2
4	Unknown	0.317 mVS	38.8
5	Unknown	17.86 mVS	45.7
6	1,2-dca	21.15 ppb	49.1
7	benzene	21.94 ppb	65.7
8	tce	24.81 ppb	80.5
9	toluene	28.92 ppb	123.7
10	pce	20.26 ppb	168.8
11	ethylbenzene	39.34 ppb	240.2
12	m,p-xylene	53.47 ppb	257.0
13	o-xylene	1.195 ppb	297.8

Notes

Illinois ANGB
Capital Airport
Joe Byrd, Jr.
OpTech
air blank- 4

Analysis #11 10S+ GC Function Analysis Report



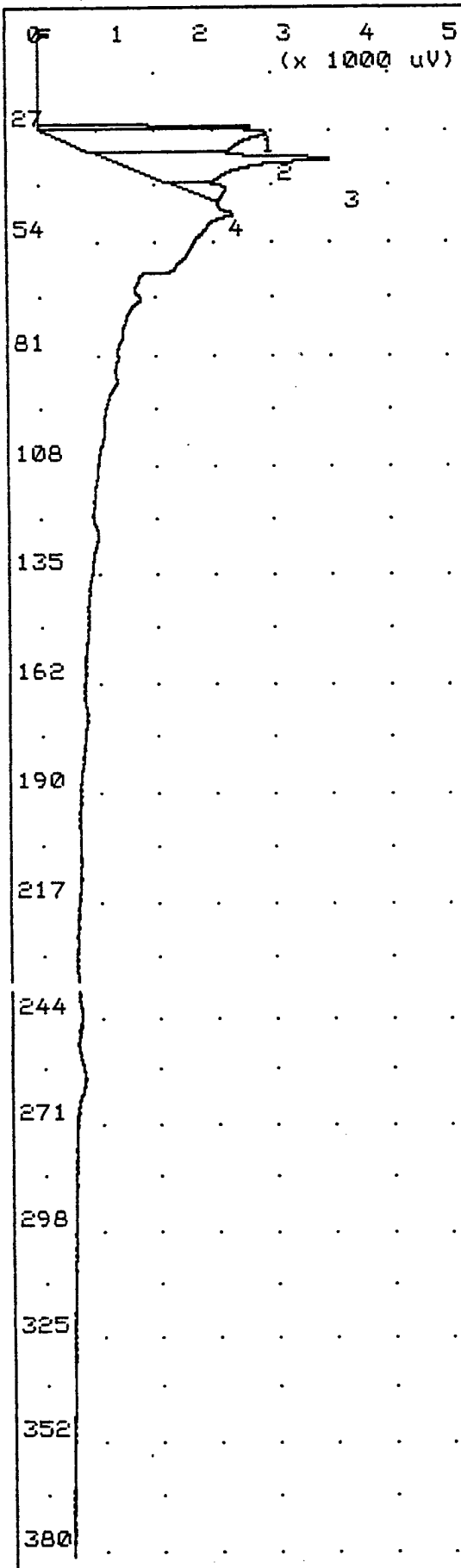
Time Printed: Dec 12, 96 10:39
Sample Time: Dec 12, 96 10:33
Method
Slope Up 0.500 mV/Sec
Slope Down 1.500 mV/Sec
Min Area 0.000 mVSec
Min Height 0.000 mV
Analysis Delay 0.0 sec
Window Percent 10.0 %
Det Flow 9 ml/min
B/F Flow 9 ml/min
Aux Flow 0 ml/min
Oven Temp 50 C
Amb Temp 35 C
Max Gain 1000
Analysis Time 380.0 sec

Peak Report			
Pk	Compound Name	Area/Conc	R.T.
1	Unknown	7.236 mVS	24.1
2	vinyl chloride	15.58 ppb	25.8
3	Unknown	35.56 mVS	32.2
4	Unknown	0.427 mVS	39.2
5	1,2-dca	18.85 ppb	45.5
6	benzene	4.238 ppb	65.7
7	tce	0.120 ppb	80.5
8	toluene	0.666 ppb	123.3
9	pce	1.382 ppb	169.8
10	ethylbenzene	1.933 ppb	241.6
11	m,p-xylene	3.016 ppb	256.5

Notes

Illinois ANGB
Capital Airport
Joe Byrd, Jr.
OpTech
air blank- 5

Analysis #12 105+ GC Function Analysis Report



Time Printed: Dec 12, 96 10:58
 Sample Time: Dec 12, 96 10:52
 Method

Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 35 C
 Max Gain 1000
 Analysis Time 380.0 sec

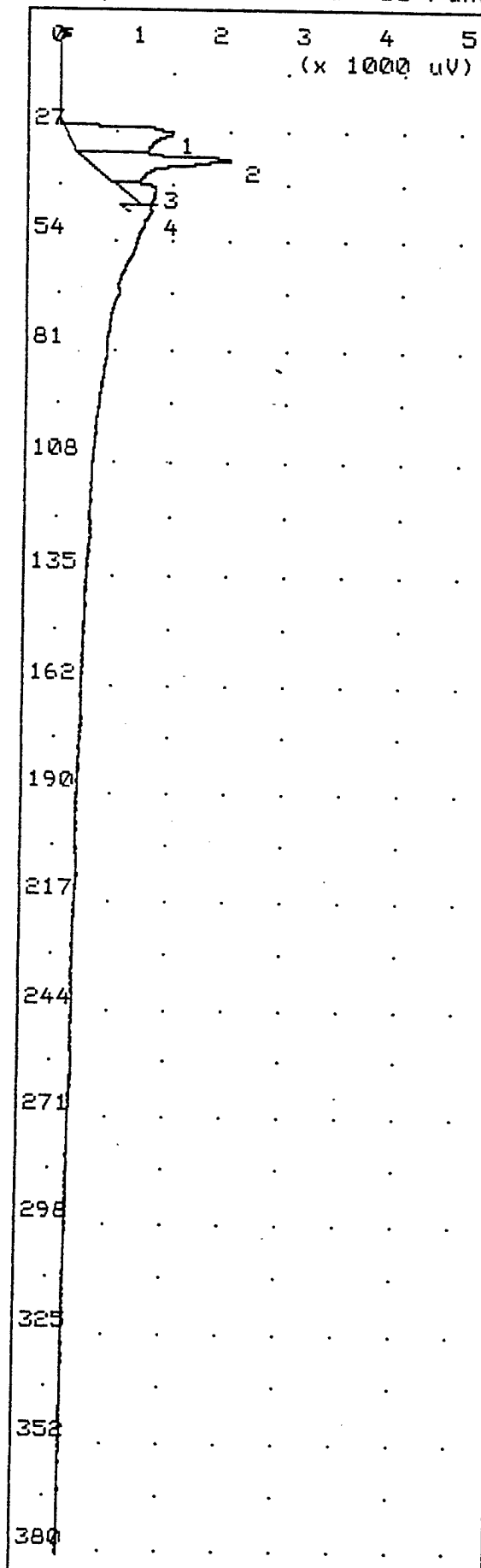
Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	Unknown	3.499 mVS	24.4
2	vinyl chloride	9.949 ppb	25.8
3	Unknown	10.78 mVS	32.2
4	Unknown	1.681 mVS	38.9

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 air blank- 6

Analysis #13 10S+ GC Function Analysis Report



Time Printed: Dec 12,96 11:11
 Sample Time: Dec 12,96 11:04
 Method

Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 35 C
 Max Gain 1000
 Analysis Time 380.0 sec

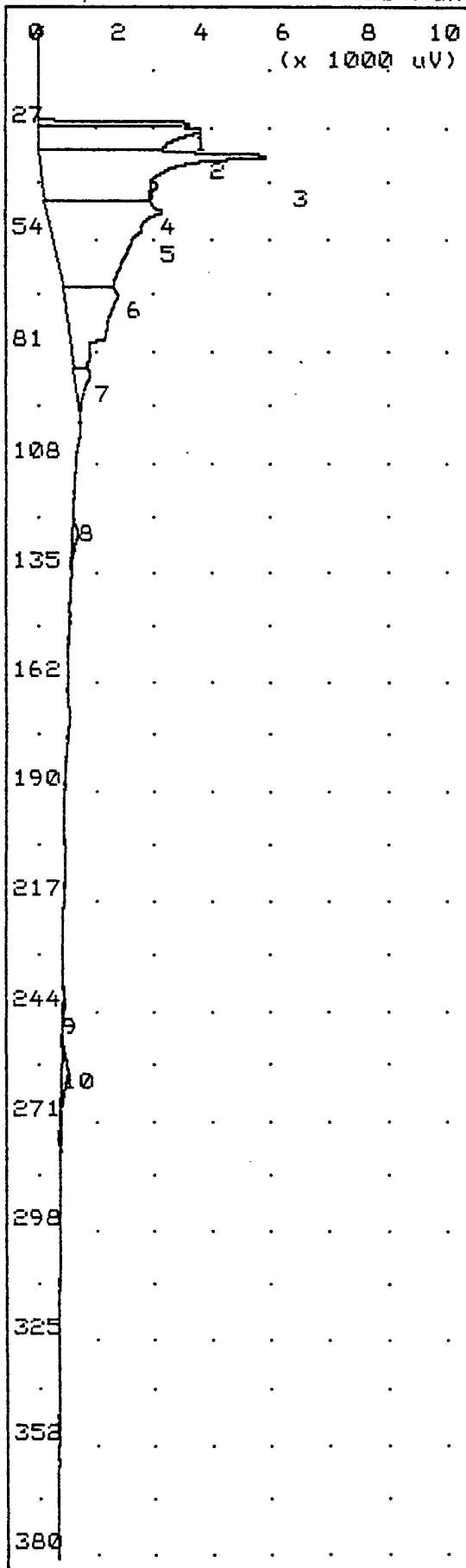
Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	vinyl chloride	6.822 ppb	25.8
2	Unknown	6.775 mVS	32.0
3	Unknown	0.544 mVS	39.4
4	Unknown	1.255 mVS	41.8

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 air blank- 7

Analysis #14 10S+ GC Function Analysis Report



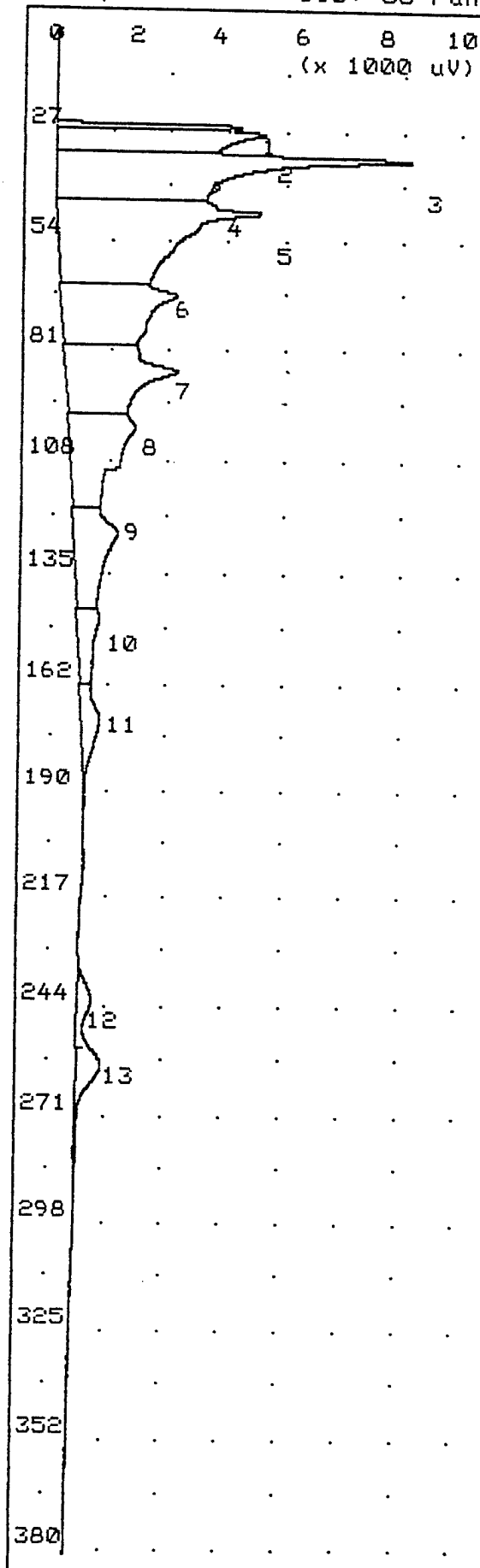
Time Printed: Dec 12, 96 11:25
 Sample Time: Dec 12, 96 11:19
 Method
 Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 35 C
 Max Gain 1000
 Analysis Time 380.0 sec

Peak Report			
Pk	Compound Name	Area/Conc	R. T.
1	Unknown	5.613 mVS	24.2
2	vinyl chloride	16.66 ppb	26.0
3	Unknown	42.41 mVS	32.1
4	Unknown	0.336 mVS	39.1
5	1,2-dca	21.57 ppb	45.6
6	benzene	7.042 ppb	65.8
7	tce	1.132 ppb	85.2
8	toluene	0.487 ppb	123.2
9	ethylbenzene	0.353 ppb	240.5
10	m,p-xylene	1.136 ppb	257.6

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 mw-201b 0.0- 0.5 10g

Analysis #15 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 11:38
Sample Time: Dec 12, 96 11:31

Method

Slope Up 0.500 mV/Sec
Slope Down 1.500 mV/Sec
Min Area 0.000 mVSec
Min Height 0.000 mV
Analysis Delay 0.0 sec
Window Percent 10.0 %
Det Flow 9 ml/min
B/F Flow 9 ml/min
Aux Flow 0 ml/min
Oven Temp 50 C
Amb Temp 35 C
Max Gain 1000
Analysis Time 380.0 sec

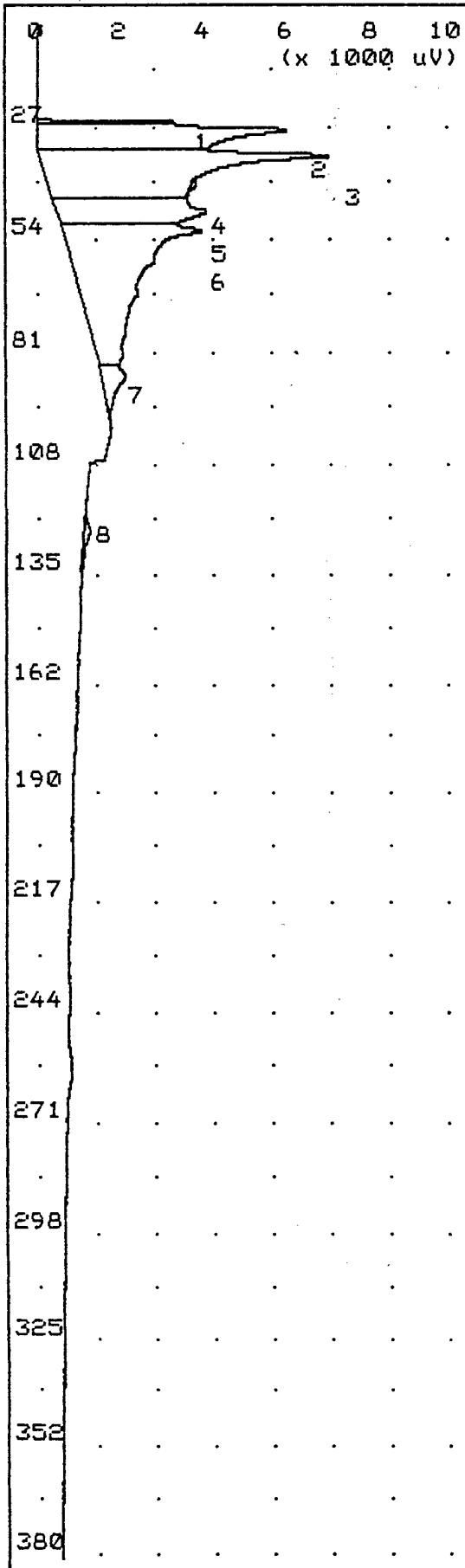
Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	Unknown	6.914 mVS	24.3
2	vinyl chloride	21.38 ppb	26.0
3	Unknown	62.15 mVS	32.3
4	Unknown	0.187 mVS	38.9
5	1,2-dca	35.80 ppb	45.6
6	benzene	14.46 ppb	66.0
7	tce	16.00 ppb	84.9
8	Unknown	26.63 mVS	99.0
9	toluene	10.92 ppb	124.0
10	Unknown	7.858 mVS	145.2
11	pce	7.360 ppb	170.2
12	ethylbenzene	4.236 ppb	241.0
13	m, p-xylene	5.715 ppb	257.8

Notes

Illinois ANGB
Capital Airport
Joe Byrd, Jr.
OpTech
mw-201b 5.0- 7.0 10g

Analysis #16 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 11:51
 Sample Time: Dec 12, 96 11:44
 Method

Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 35 C
 Max Gain 1000
 Analysis Time 380.0 sec

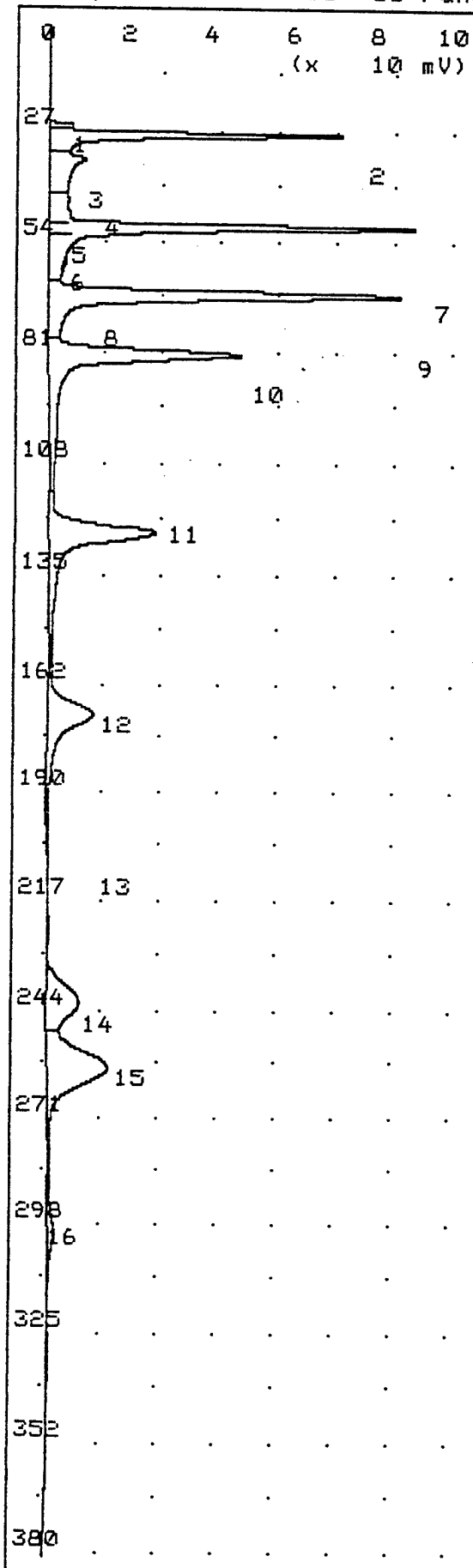
Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	Unknown	4.500 mVS	24.2
2	vinyl chloride	23.37 ppb	25.9
3	Unknown	51.79 mVS	32.2
4	Unknown	0.252 mVS	38.8
5	Unknown	21.01 mVS	45.8
6	1,2-dca	26.25 ppb	50.4
7	tce	1.975 ppb	84.9
8	toluene	0.481 ppb	122.9

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 mw-201b 10.0-12.0 10g

Analysis #17 10S+ GC Function Analysis Report



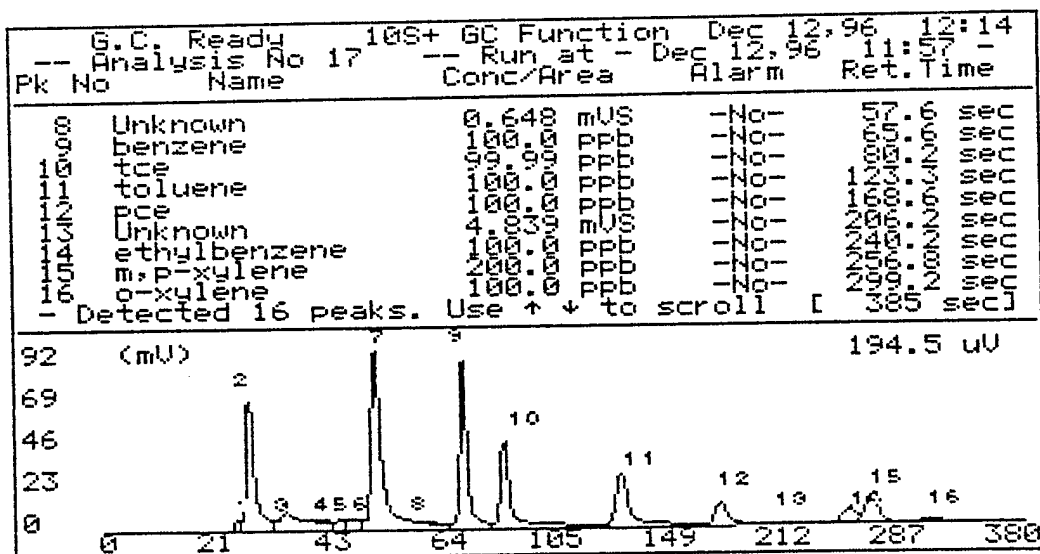
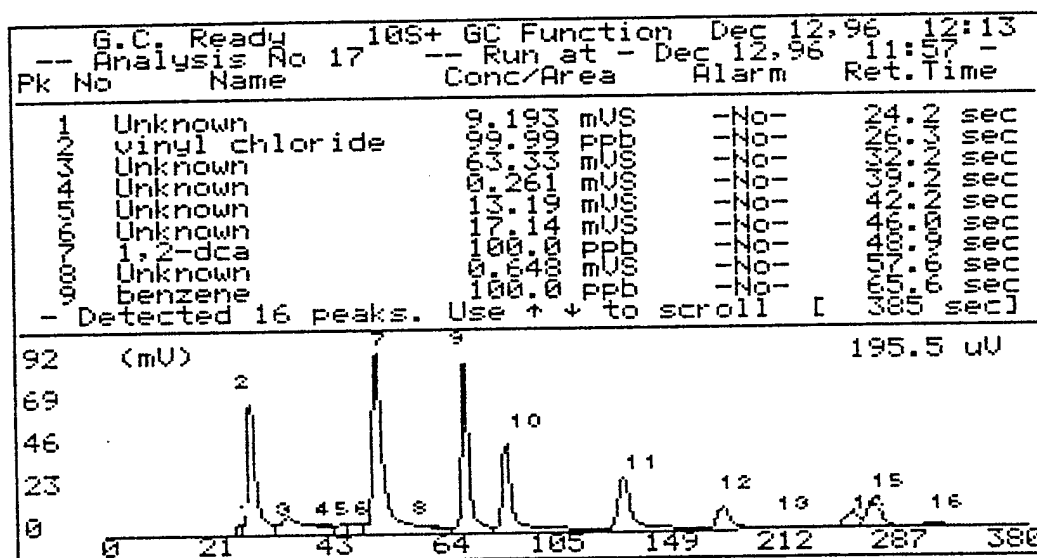
Time Printed: Dec 12, 96 12:03
Sample Time: Dec 12, 96 11:57
Method
Slope Up 0.500 mV/Sec
Slope Down 1.500 mV/Sec
Min Area 0.000 mVSec
Min Height 0.000 mV
Analysis Delay 0.0 sec
Window Percent 10.0 %
Det Flow 9 ml/min
B/F Flow 9 ml/min
Aux Flow 0 ml/min
Oven Temp 50 C
Amb Temp 36 C
Max Gain 1000
Analysis Time 380.0 sec

Peak Report

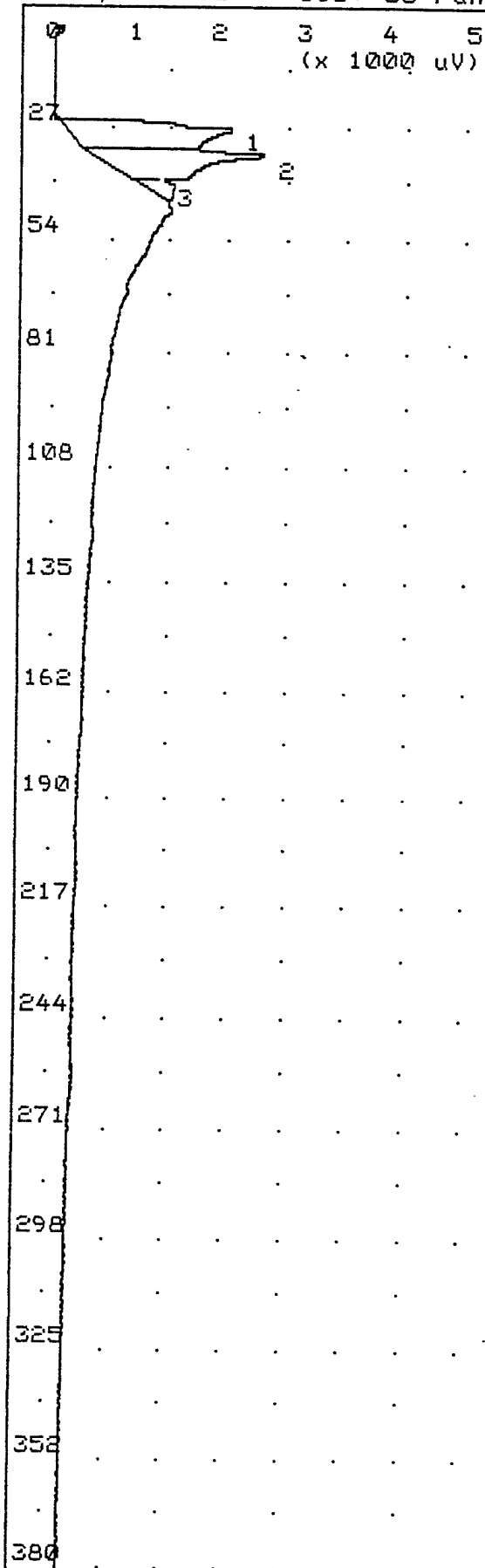
Pk	Compound Name	Area/Conc	R.T.
1	Unknown	9.193 mVS	24.2
2	vinyl chloride	99.82 ppb	26.3
3	Unknown	63.33 mVS	32.2
4	Unknown	0.261 mVS	39.2
5	Unknown	13.19 mVS	42.2
6	Unknown	17.14 mVS	46.0
7	1,2-dca	129.6 ppb	48.9
8	Unknown	0.648 mVS	57.6
9	benzene	104.4 ppb	65.6
10	tce	106.3 ppb	80.2
11	toluene	112.2 ppb	123.3
12	pce	101.0 ppb	168.6
13	Unknown	4.839 mVS	206.2
14	ethylbenzene	104.6 ppb	240.2
15	m, p-xylene	158.2 ppb	256.8
16	o-xylene	23.63 ppb	299.2

Notes

Illinois ANGB
Capital Airport
Joe Byrd, Jr.
OpTech
100 ppb standard



Analysis #18 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 12:23
Sample Time: Dec 12, 96 12:17

Method

Slope Up 0.500 mV/Sec
Slope Down 1.500 mV/Sec
Min Area 0.000 mVSec
Min Height 0.000 mV
Analysis Delay 0.0 sec
Window Percent 10.0 %
Det Flow 9 ml/min
B/F Flow 9 ml/min
Aux Flow 0 ml/min
Oven Temp 50 C
Amb Temp 36 C
Max Gain 1000
Analysis Time 380.0 sec

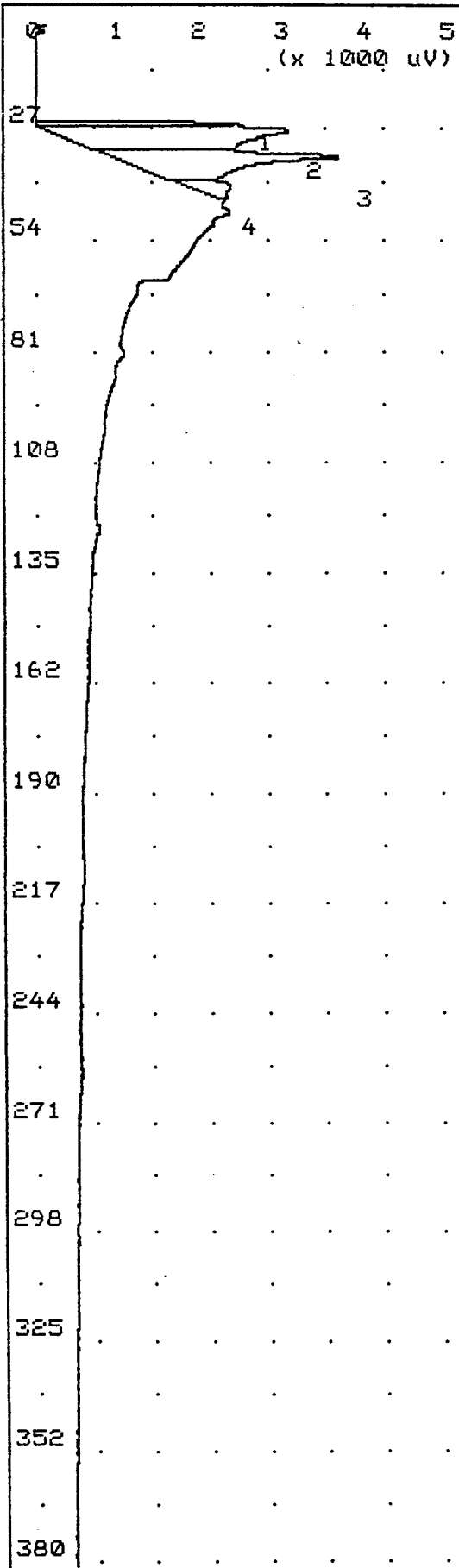
Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	vinyl chloride	9.886 ppb	25.6
2	Unknown	9.558 mVS	32.0
3	Unknown	1.252 mVS	39.6

Notes

Illinois ANGB
Capital Airport
Joe Byrd, Jr.
OpTech
air blank-8

Analysis #19 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 13:39
Sample Time: Dec 12, 96 13:33

Method

Slope Up 0.500 mV/Sec
Slope Down 1.500 mV/Sec
Min Area 0.000 mVSec
Min Height 0.000 mV
Analysis Delay 0.0 sec
Window Percent 10.0 %
Det Flow 9 ml/min
B/F Flow 9 ml/min
Aux Flow 0 ml/min
Oven Temp 50 C
Amb Temp 35 C
Max Gain 1000
Analysis Time 380.0 sec

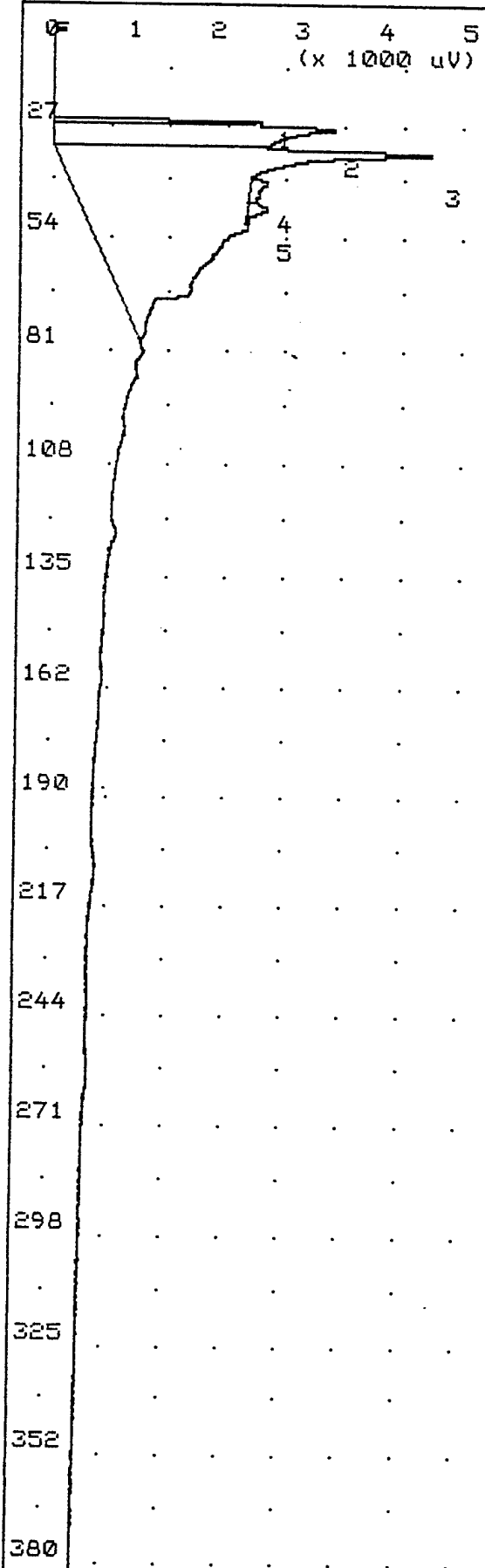
Peak Report

Pk	Compound Name	Area/Conc	R. T.
1	Unknown	3.119 mVS	24.3
2	vinyl chloride	11.00 ppb	26.0
3	Unknown	11.21 mVS	32.2
4	Unknown	1.721 mVS	39.0

Notes

Illinois ANGB
Capital Airport
Joe Byrd, Jr.
OpTech
mw-201b 15.0-17.0 10g

Analysis #20 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 13:52
Sample Time: Dec 12, 96 13:46

Method

Slope Up 0.500 mV/Sec
Slope Down 1.500 mV/Sec
Min Area 0.000 mVSec
Min Height 0.000 mV
Analysis Delay 0.0 sec
Window Percent 10.0 %
Det Flow 9 ml/min
B/F Flow 9 ml/min
Aux Flow 0 ml/min
Oven Temp 50 C
Amb Temp 35 C
Max Gain 1000
Analysis Time 380.0 sec

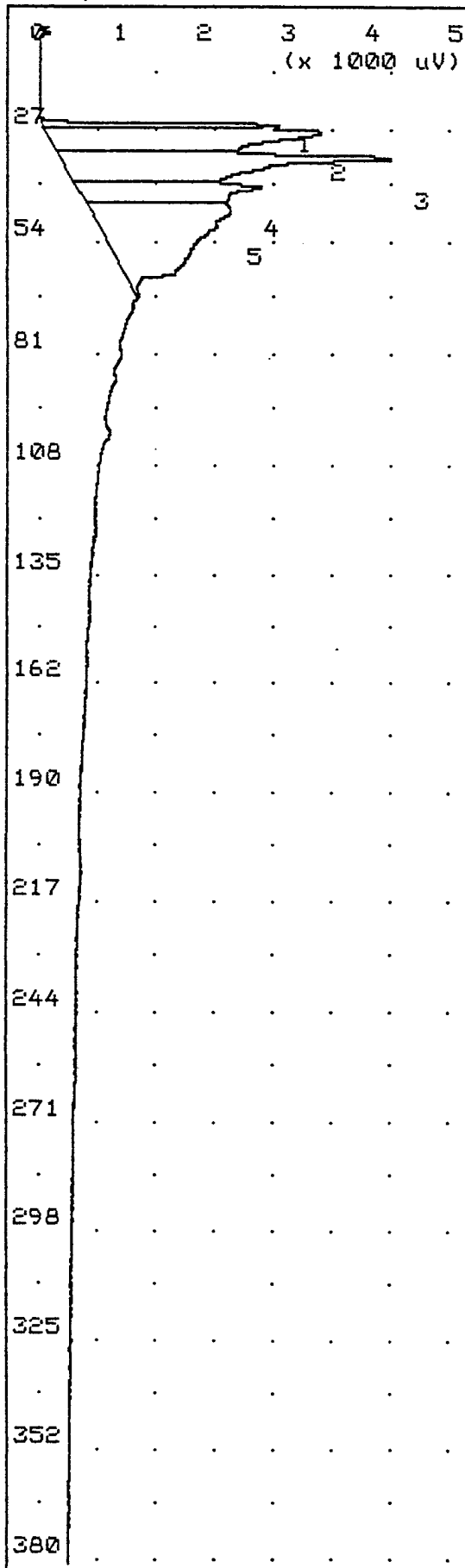
Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	Unknown	3.394 mVS	24.4
2	vinyl chloride	14.36 ppb	26.0
3	Unknown	74.55 mVS	32.3
4	Unknown	0.782 mVS	39.4
5	1,2-dca	0.233 ppb	45.6

Notes

Illinois ANGB
Capital Airport
Joe Byrd, Jr.
OpTech
mw-201b 20.0-22.0 10g

Analysis #21 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 14:09
 Sample Time: Dec 12, 96 14:03
 Method
 Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 35 C
 Max Gain 1000
 Analysis Time 380.0 sec

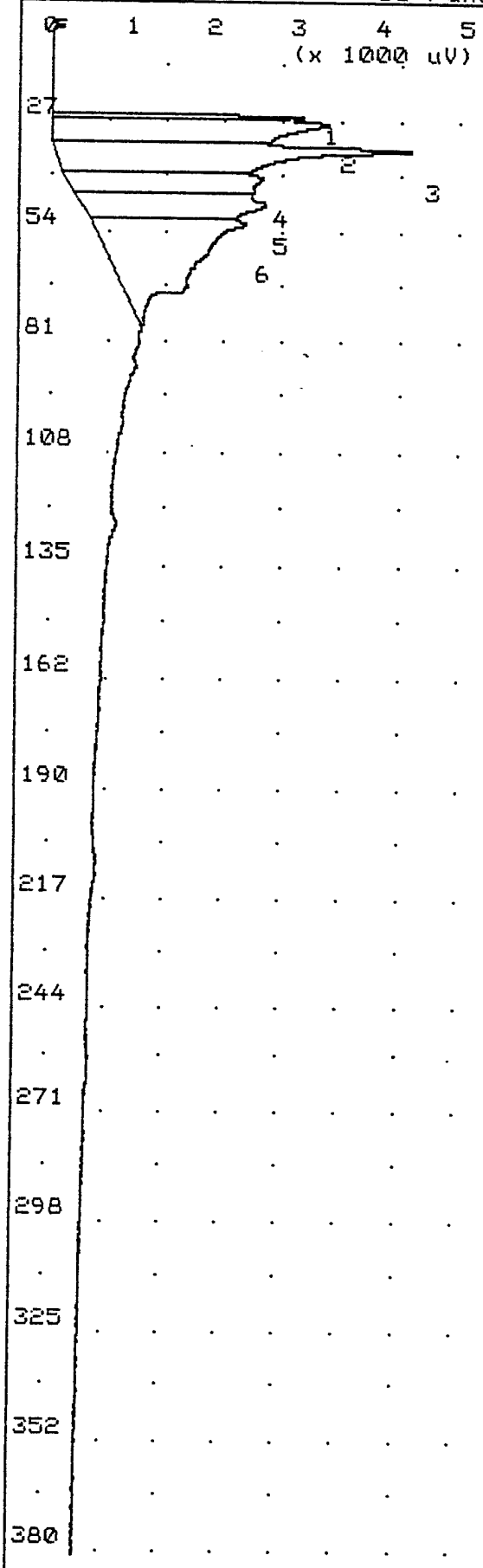
Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	Unknown	3.703 mVS	24.1
2	vinyl chloride	12.68 ppb	25.8
3	Unknown	18.80 mVS	32.2
4	Unknown	10.45 mVS	39.2
5	1,2-dca	8.887 ppb	44.7

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 mw-201b 25.0-26.5 10g

Analysis #22 10S+ GC Function Analysis Report



Time Printed: Dec 12,96 14:49
Sample Time: Dec 12,96 14:43
Method
Slope Up 0.500 mV/Sec
Slope Down 1.500 mV/Sec
Min Area 0.000 mVSec
Min Height 0.000 mV
Analysis Delay 0.0 sec
Window Percent 10.0 %
Det Flow 9 ml/min
B/F Flow 9 ml/min
Aux Flow 0 ml/min
Oven Temp 50 C
Amb Temp 35 C
Max Gain 1000
Analysis Time 380.0 sec

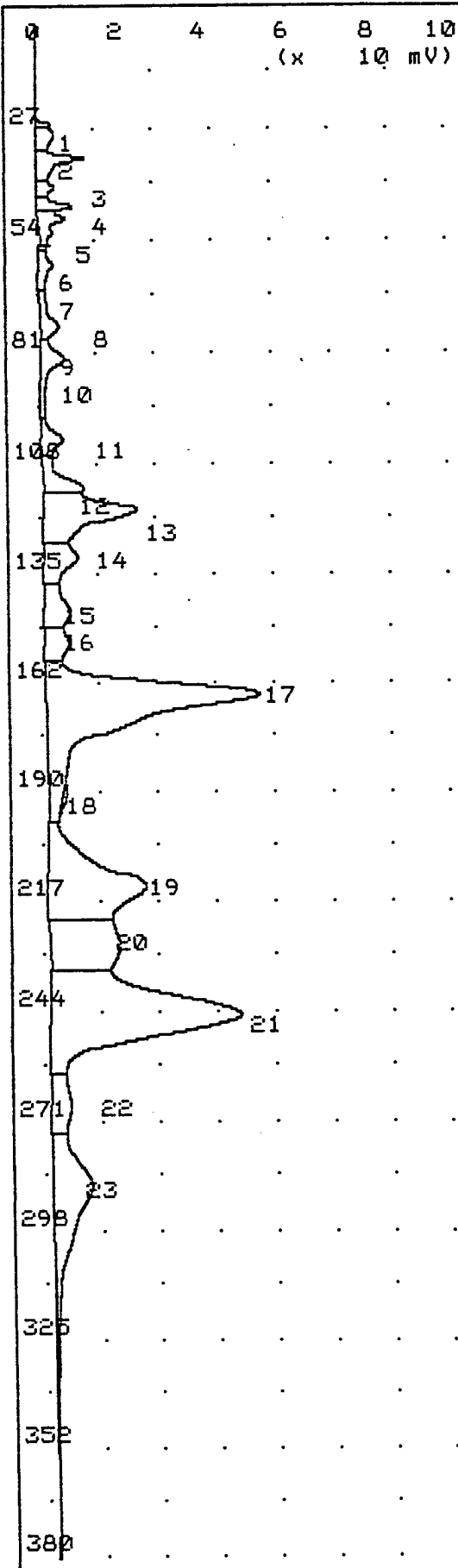
Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	Unknown	4.628 mVS	24.4
2	vinyl chloride	14.62 ppb	26.0
3	Unknown	22.25 mVS	32.4
4	Unknown	11.61 mVS	39.3
5	Unknown	13.46 mVS	45.8
6	1,2-dca	10.22 ppb	50.4

Notes

Illinois ANGB
Capital Airport
Joe Byrd, Jr.
OpTech
mw-202b 0.0- 2.0 10g

Analysis #23 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 15:04
Sample Time: Dec 12, 96 14:58

Method

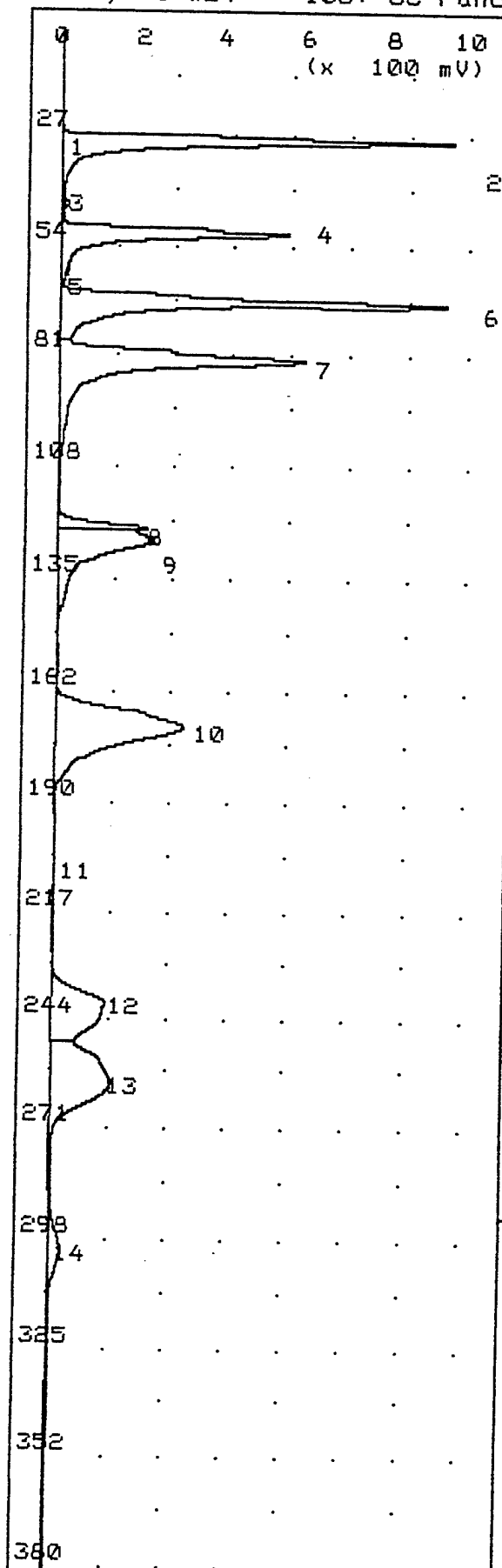
Slope Up 0.500 mV/Sec
Slope Down 1.500 mV/Sec
Min Area 0.000 mVSec
Min Height 0.000 mV
Analysis Delay 0.0 sec
Window Percent 10.0 %
Det Flow 9 ml/min
B/F Flow 9 ml/min
Aux Flow 0 ml/min
Oven Temp 50 C
Amb Temp 35 C
Max Gain 1000
Analysis Time 380.0 sec

Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	Unknown	6.329 mVS	24.2
2	vinyl chloride	17.30 ppb	26.7
3	Unknown	39.68 mVS	32.4
4	Unknown	13.73 mVS	39.4
5	Unknown	21.68 mVS	44.0
6	Unknown	18.11 mVS	47.1
7	1,2-dca	6.735 ppb	50.4
8	Unknown	22.67 mVS	58.2
9	Unknown	32.87 mVS	73.0
10	tce	19.72 ppb	81.0
11	Unknown	29.20 mVS	100.5
12	Unknown	50.97 mVS	112.5
13	toluene	86.53 ppb	117.8
14	Unknown	63.31 mVS	129.6
15	Unknown	54.92 mVS	143.2
16	Unknown	42.53 mVS	151.0
17	pce	251.1 ppb	164.2
18	Unknown	4.104 mVS	188.4
19	Unknown	326.3 mVS	211.8
20	Unknown	209.3 mVS	226.0
21	ethylbenzene	442.6 ppb	243.2
22	m,p-xylene	70.30 ppb	265.6
23	o-xylene	514.9 ppb	285.8

Notes

Illinois ANGB
Capital Airport
Joe Byrd, Jr.
OpTech
mw-202b 5.0- 7.0 10g



Time Printed: Dec 12, 96 15:20
Sample Time: Dec 12, 96 15:14

Method

Slope Up 0.500 mV/Sec
Slope Down 1.500 mV/Sec
Min Area 0.000 mVSec
Min Height 0.000 mV
Analysis Delay 0.0 sec
Window Percent 10.0 %
Det Flow 9 ml/min
B/F Flow 9 ml/min
Aux Flow 0 ml/min
Oven Temp 50 C
Amb Temp 35 C
Max Gain 1000
Analysis Time 380.0 sec

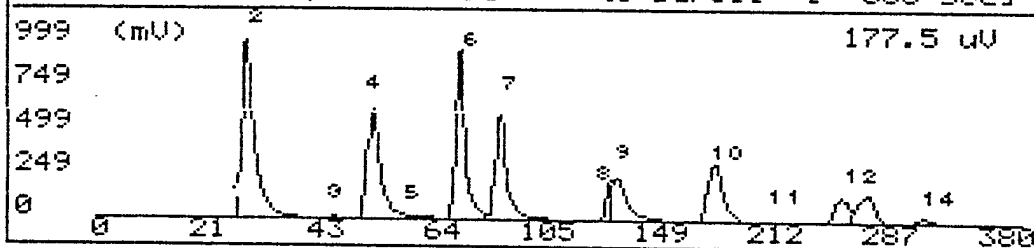
Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	Unknown	6.994 mVS	24.2
2	vinyl chloride	983.6 ppb	26.8
3	Unknown	17.45 mVS	42.4
4	1,2-dca	1.227 ppm	49.5
5	Unknown	11.37 mVS	58.0
6	benzene	977.4 ppb	66.4
7	tce	979.8 ppb	81.2
8	Unknown	460.8 mVS	121.6
9	toluene	965.0 ppb	124.5
10	pce	981.6 ppb	169.8
11	Unknown	19.21 mVS	205.6
12	ethylbenzene	1.001 ppm	238.2
13	m,p-xylene	1.978 ppm	258.4
14	o-xylene	883.3 ppb	299.4

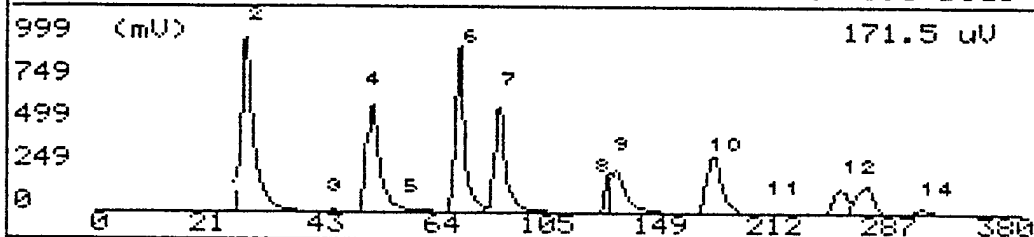
Notes

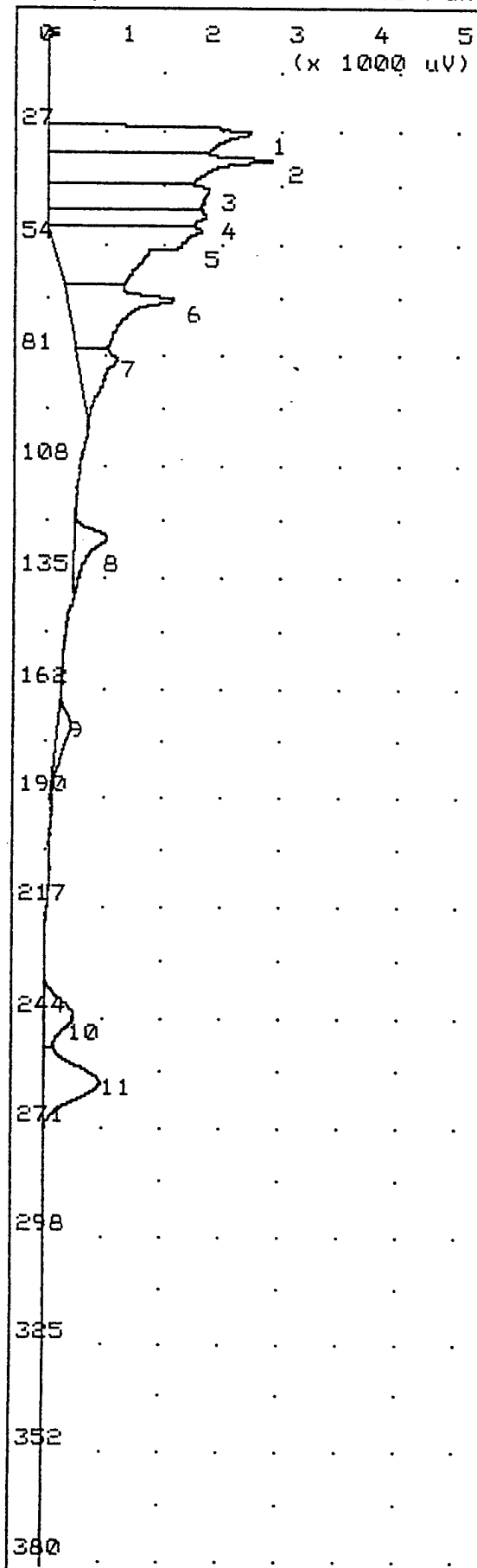
Illinois ANGB
Capital Airport
Joe Byrd, Jr.
OpTech
1 ppm standard

G.C. Ready		10S+ GC Function		Dec 12, 96 15:27	
-- Analysis No 24		-- Run at -		Dec 12, 96 15:14 -	
Pk No	Name	Conc/Area	Alarm	Ret. Time	
1	Unknown	6.994 mUS	-No-	24.2 sec	
	vinyl chloride	1.000 ppm	-No-	26.5 sec	
	Unknown	17.455 mUS	-No-	42.4 sec	
	1,2-dca	1.000 ppm	-No-	49.5 sec	
	Unknown	11.377 mUS	-No-	50.0 sec	
	benzene	1.000 ppm	-No-	66.4 sec	
	tce	1.000 ppm	-No-	81.2 sec	
	Unknown	468.9 mUS	-No-	121.6 sec	
	toluene	1.000 ppm	-No-	124.5 sec	
- Detected 14 peaks. Use + + to scroll [385 sec]					



G.C. Ready		10S+ GC Function		Dec 12, 96 15:28	
-- Analysis No 24		-- Run at -		Dec 12, 96 15:14 -	
Pk No	Name	Conc/Area	Alarm	Ret. Time	
6	benzene	1.000 ppm	-No-	66.4	sec
7	tce	1.000 ppm	-No-	81.2	sec
8	Unknown	468.9 mUS	-No-	121.6	sec
9	toluene	1.000 ppm	-No-	124.5	sec
10	pce	1.000 ppm	-No-	166.0	sec
11	Unknown	28.23 mUS	-No-	200.6	sec
12	ethylbenzene	1.001 ppm	-No-	230.2	sec
13	m,p-xylene	2.000 ppm	-No-	250.4	sec
14	o-xylene	1.011 ppm	-No-	299.4	sec
- Detected 14 peaks. Use + + to scroll [385 sec]					





Time Printed: Dec 12, 96 15:37

Sample Time: Dec 12, 96 15:30

Method

Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 36 C
 Max Gain 1000
 Analysis Time 380.0 sec

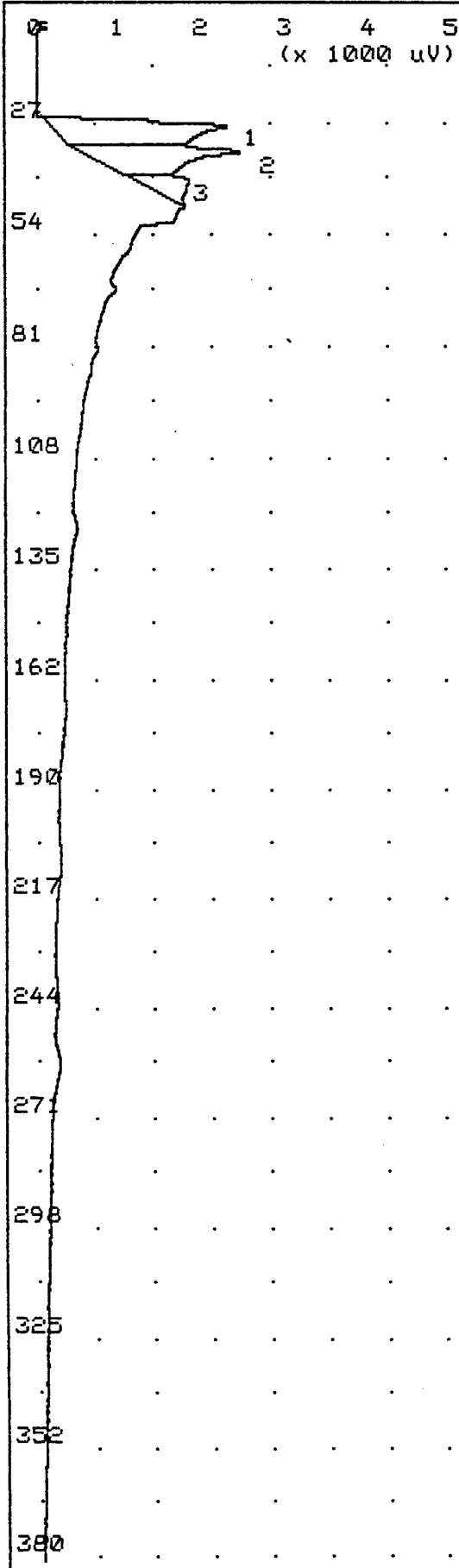
Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	vinyl chloride	14.07 ppb	25.9
2	Unknown	17.01 mVS	32.3
3	Unknown	13.09 mVS	39.5
4	Unknown	7.757 mVS	45.5
5	1,2-dca	7.339 ppb	49.2
6	benzene	4.506 ppb	66.0
7	tce	1.911 ppb	80.6
8	toluene	1.494 ppb	124.5
9	pce	1.738 ppb	169.8
10	ethylbenzene	4.672 ppb	241.3
11	m,p-xylene	8.739 ppb	258.4

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 air blank-9

Analysis #26 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 15:49
Sample Time: Dec 12, 96 15:42

Method

Slope Up 0.500 mV/Sec
Slope Down 1.500 mV/Sec
Min Area 0.000 mVSec
Min Height 0.000 mV
Analysis Delay 0.0 sec
Window Percent 10.0 %
Det Flow 9 ml/min
B/F Flow 9 ml/min
Aux Flow 0 ml/min
Oven Temp 50 C
Amb Temp 36 C
Max Gain 1000
Analysis Time 380.0 sec

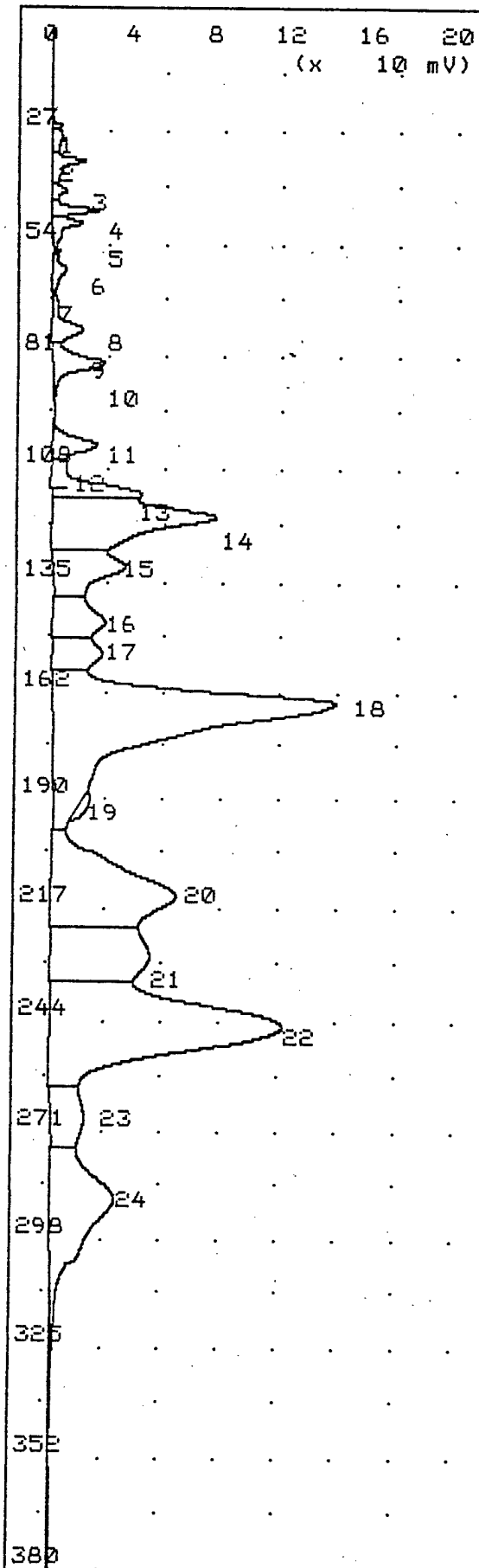
Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	vinyl chloride	10.10 ppb	26.0
2	Unknown	8.719 mVS	32.2
3	Unknown	2.633 mVS	39.7

Notes

Illinois ANGB
Capital Airport
Joe Byrd, Jr.
OpTech
air blank-10

Analysis #27 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 16:01
Sample Time: Dec 12, 96 15:54

Method

Slope Up 0.500 mV/Sec
Slope Down 1.500 mV/Sec
Min Area 0.000 mVSec
Min Height 0.000 mV
Analysis Delay 0.0 sec
Window Percent 10.0 %
Det Flow 9 ml/min
B/F Flow 9 ml/min
Aux Flow 0 ml/min
Oven Temp 50 C
Amb Temp 36 C
Max Gain 1000
Analysis Time 380.0 sec

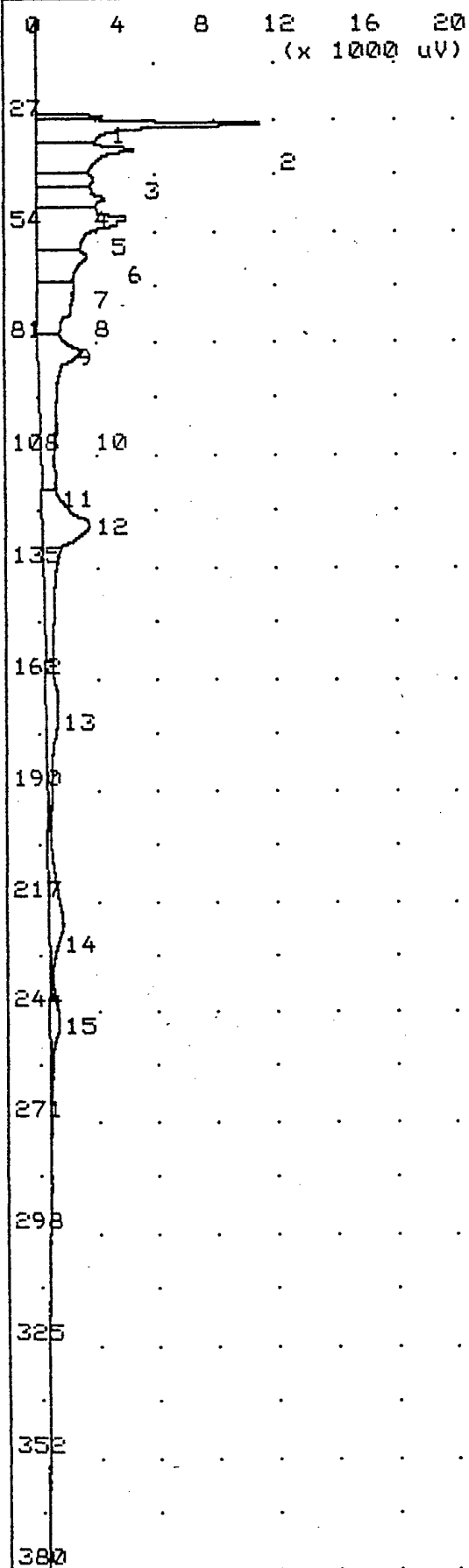
Peak Report

Pk	Compound Name	Area/Conc	R. T.
1	Unknown	8.555 mVS	24.0
2	vinyl chloride	19.39 ppb	26.8
3	Unknown	48.13 mVS	32.4
4	Unknown	18.42 mVS	39.4
5	Unknown	45.64 mVS	44.1
6	Unknown	50.12 mVS	47.3
7	1,2-dca	0.359 ppb	50.2
8	Unknown	32.01 mVS	58.5
9	benzene	28.80 ppb	73.0
10	tce	55.08 ppb	81.2
11	Unknown	98.47 mVS	100.8
12	Unknown	15.76 mVS	106.4
13	Unknown	181.4 mVS	112.8
14	Unknown	647.6 mVS	118.1
15	toluene	155.6 ppb	129.8
16	Unknown	215.5 mVS	143.4
17	Unknown	170.9 mVS	151.4
18	pce	654.6 ppb	163.6
19	Unknown	24.82 mVS	188.6
20	Unknown	902.6 mVS	212.2
21	Unknown	605.6 mVS	226.6
22	ethylbenzene	1.290 ppm	243.2
23	m, p-xylene	252.8 ppb	265.8
24	o-xylene	1.989 ppm	286.6

Notes

Illinois ANGB
Capital Airport
Joe Byrd, Jr.
OpTech
mw-202b reshot 5.0-7.0 10g

Analysis #28 10S+ GC Function Analysis Report



Time Printed: Dec. 12, 96 16:27
 Sample Time: Dec 12, 96 16:21
 Method
 Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 36 C
 Max Gain 1000
 Analysis Time 380.0 sec

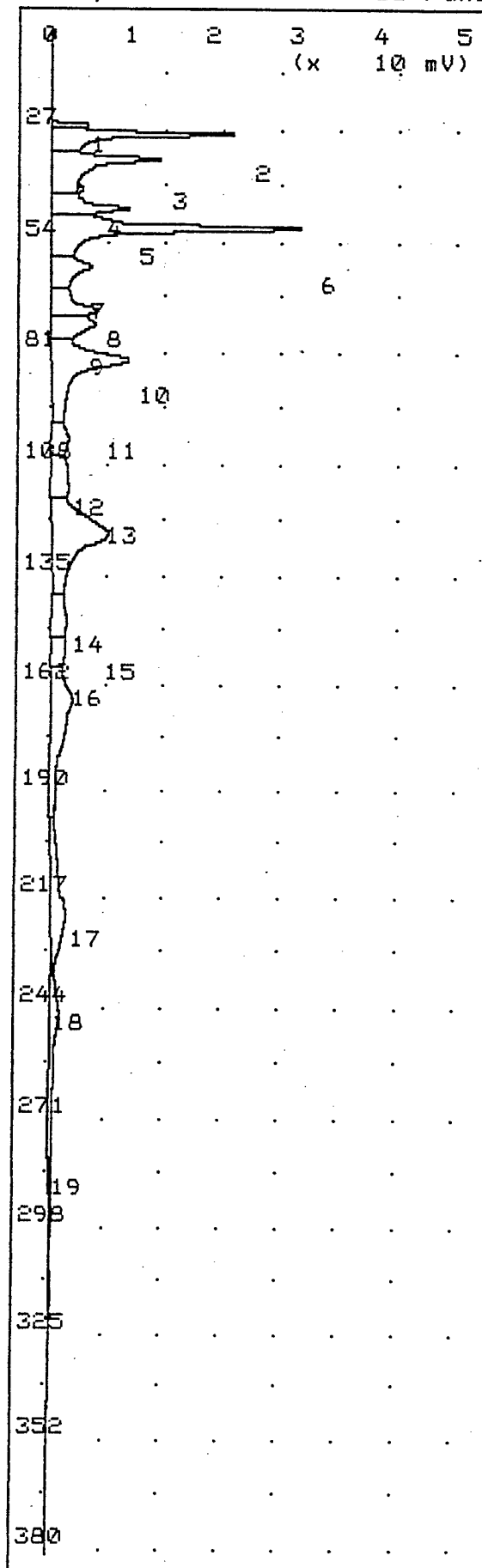
Peak Report

Pk	Compound Name	Area/Conc	R. T.
1	Unknown	4.588 mVS	24.3
2	vinyl chloride	23.00 ppb	26.4
3	Unknown	24.56 mVS	32.3
4	Unknown	9.772 mVS	39.2
5	Unknown	15.08 mVS	44.0
6	1,2-dca	12.98 ppb	49.0
7	Unknown	16.73 mVS	58.2
8	benzene	7.741 ppb	66.1
9	tce	16.09 ppb	81.2
10	Unknown	0.124 mVS	100.8
11	Unknown	0.087 mVS	112.6
12	toluene	19.61 ppb	123.7
13	pce	16.11 ppb	165.2
14	Unknown	15.84 mVS	220.8
15	ethylbenzene	10.03 ppb	245.0

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 mw-202b 10.0-12.0 10g

Analysis #29 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 16:44
Sample Time: Dec 12, 96 16:37

Method

Slope Up 0.500 mV/Sec
Slope Down 1.500 mV/Sec
Min Area 0.000 mVSec
Min Height 0.000 mV
Analysis Delay 0.0 sec
Window Percent 10.0 %
Det Flow 9 ml/min
B/F Flow 9 ml/min
Aux Flow 0 ml/min
Oven Temp 50 C
Amb Temp 35 C
Max Gain 1000
Analysis Time 380.0 sec

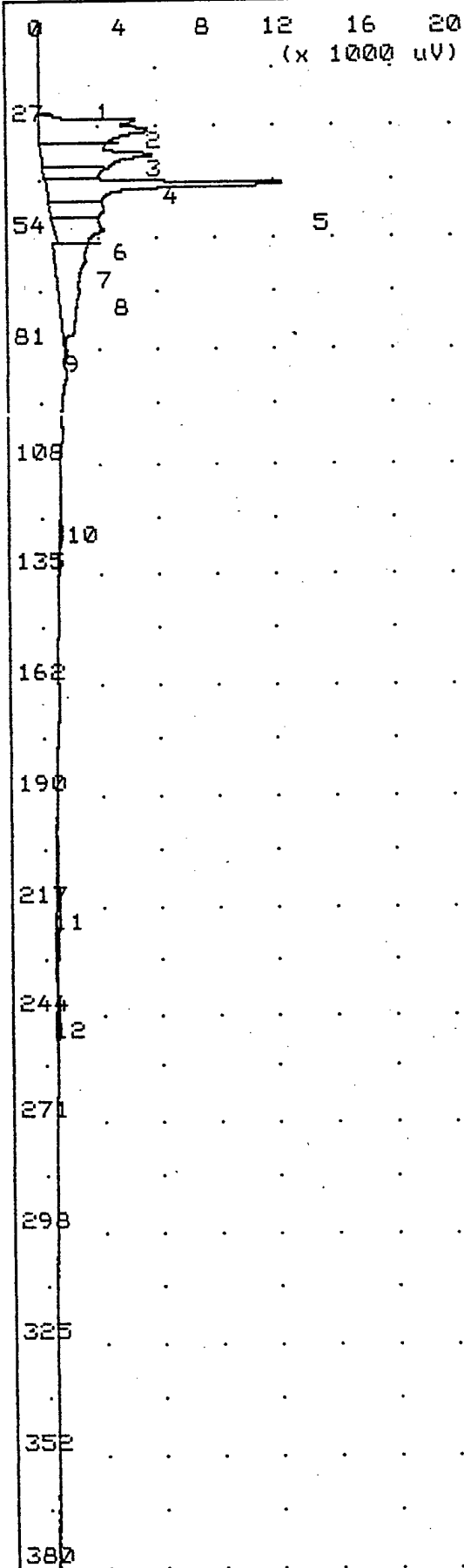
Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	Unknown	7.165 mVS	24.2
2	vinyl chloride	36.89 ppb	26.3
3	Unknown	57.36 mVS	32.3
4	Unknown	1.012 mVS	39.5
5	Unknown	28.73 mVS	44.2
6	1,2-dca	38.50 ppb	49.0
7	Unknown	27.23 mVS	58.4
8	benzene	9.748 ppb	69.2
9	Unknown	25.46 mVS	72.6
10	tce	31.15 ppb	81.3
11	Unknown	15.21 mVS	100.6
12	Unknown	20.78 mVS	112.5
13	toluene	44.62 ppb	123.4
14	Unknown	19.34 mVS	144.8
15	Unknown	12.02 mVS	151.0
16	pce	49.09 ppb	164.8
17	Unknown	42.32 mVS	219.4
18	ethylbenzene	29.90 ppb	243.4
19	o-xylene	19.66 ppb	284.0

Notes

Illinois ANGB
Capital Airport
Joe Byrd, Jr.
OpTech
mw-202b 15.0-17.0 10g

Analysis #30 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 17:00
Sample Time: Dec 12, 96 16:53
Method

Slope Up 0.500 mV/Sec
Slope Down 1.500 mV/Sec
Min Area 0.000 mVSec
Min Height 0.000 mV
Analysis Delay 0.0 sec
Window Percent 10.0 %
Det Flow 9 ml/min
B/F Flow 9 ml/min
Aux Flow 0 ml/min
Oven Temp 50 C
Amb Temp 35 C
Max Gain 1000
Analysis Time 380.0 sec

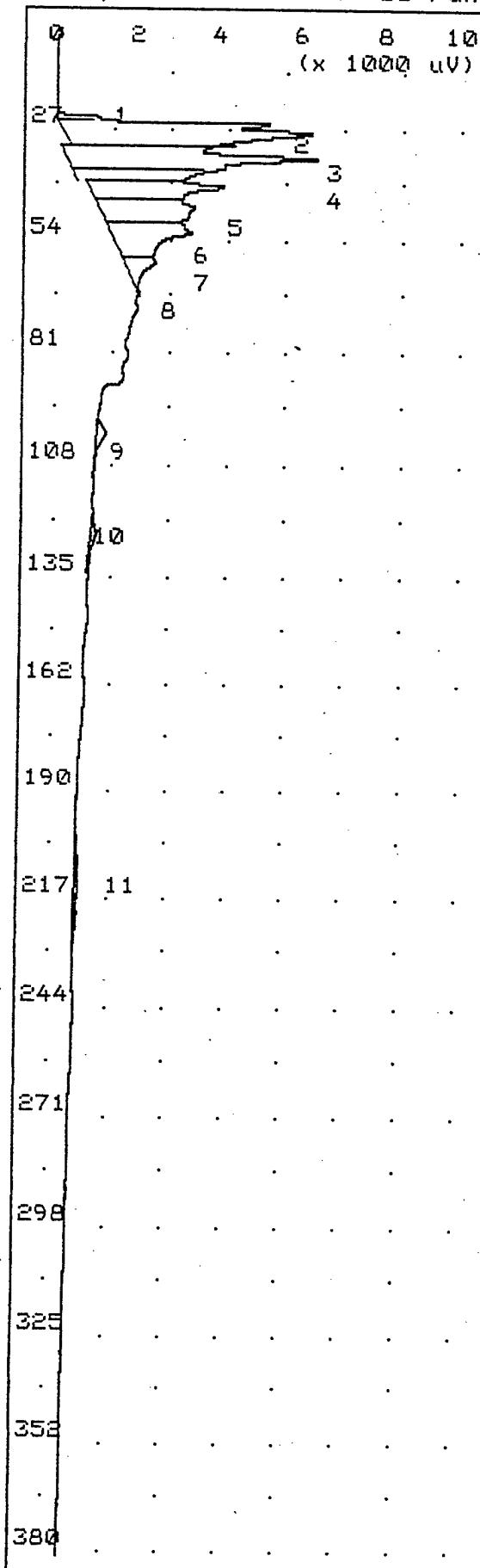
Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	Unknown	0.836 mVS	22.6
2	Unknown	6.840 mVS	24.1
3	vinyl chloride	17.97 ppb	26.4
4	Unknown	24.93 mVS	32.2
5	Unknown	28.31 mVS	39.4
6	Unknown	11.35 mVS	45.5
7	1,2-dca	1.523 ppb	49.2
8	Unknown	32.26 mVS	50.2
9	tce	0.169 ppb	80.8
10	toluene	0.396 ppb	123.3
11	Unknown	1.997 mVS	217.4
12	ethylbenzene	0.650 ppb	244.0

Notes

Illinois ANGB
Capital Airport
Joe Byrd, Jr.
OpTech
mw-202b 20.0-22.0 10g

Analysis #31 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 17:12
Sample Time: Dec 12, 96 17:06

Method

Slope Up 0.500 mV/Sec
Slope Down 1.500 mV/Sec
Min Area 0.000 mVSec
Min Height 0.000 mV
Analysis Delay 0.0 sec
Window Percent 10.0 %
Det Flow 9 ml/min
B/F Flow 9 ml/min
Aux Flow 0 ml/min
Oven Temp 50 C
Amb Temp 35 C
Max Gain 1000
Analysis Time 380.0 sec

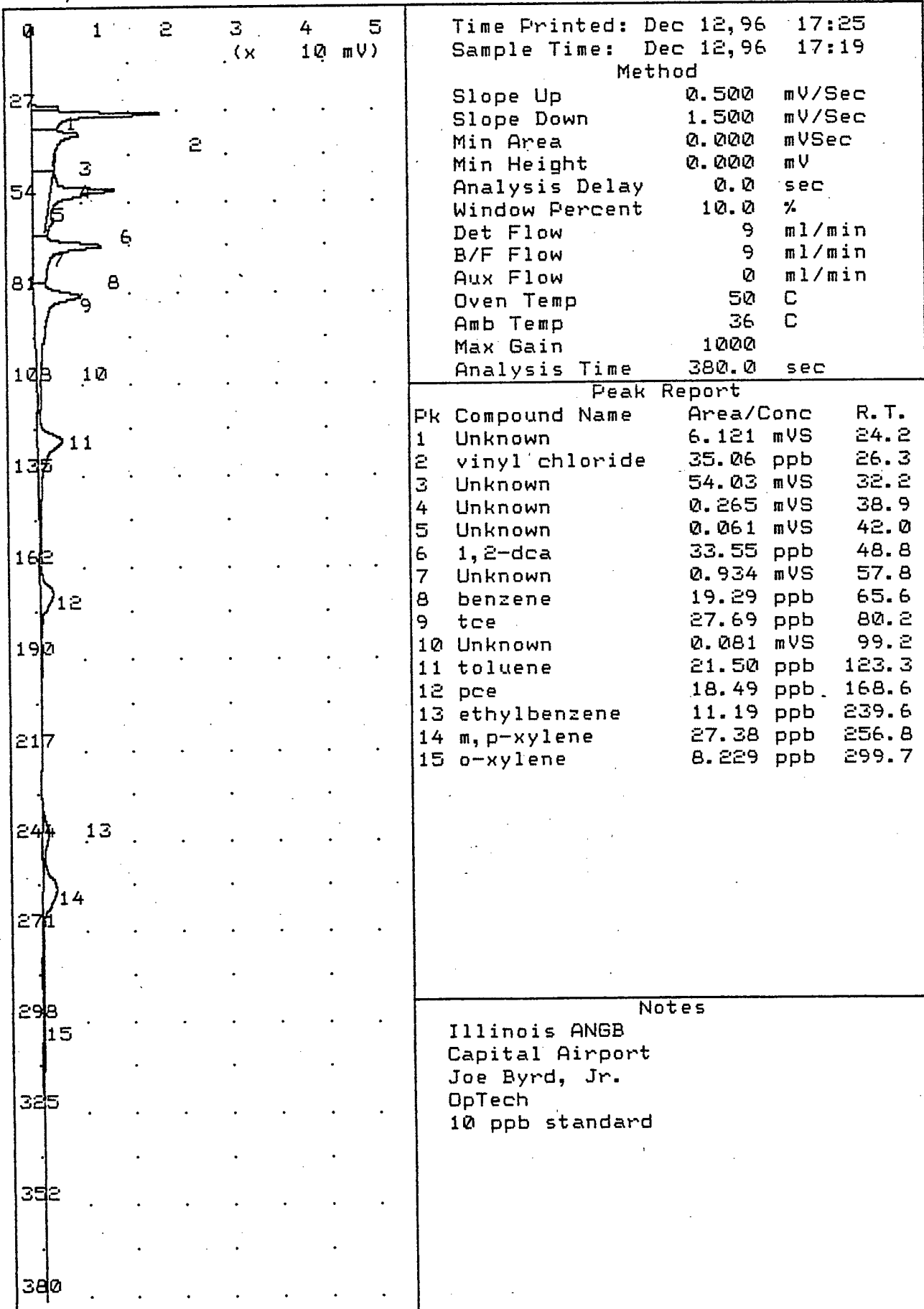
Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	Unknown	1.383 mVS	22.6
2	Unknown	7.611 mVS	24.1
3	vinyl chloride	20.61 ppb	26.1
4	Unknown	27.12 mVS	32.3
5	Unknown	12.05 mVS	39.4
6	Unknown	12.10 mVS	44.8
7	1,2-dca	5.061 ppb	50.4
8	Unknown	3.376 mVS	57.9
9	Unknown	1.061 mVS	98.9
10	toluene	0.347 ppb	122.9
11	Unknown	1.247 mVS	210.4

Notes

Illinois ANGB
Capital Airport
Joe Byrd, Jr.
OpTech
mw-202b 25.0-27.0 10g

Analysis #32 10S+ GC Function Analysis Report

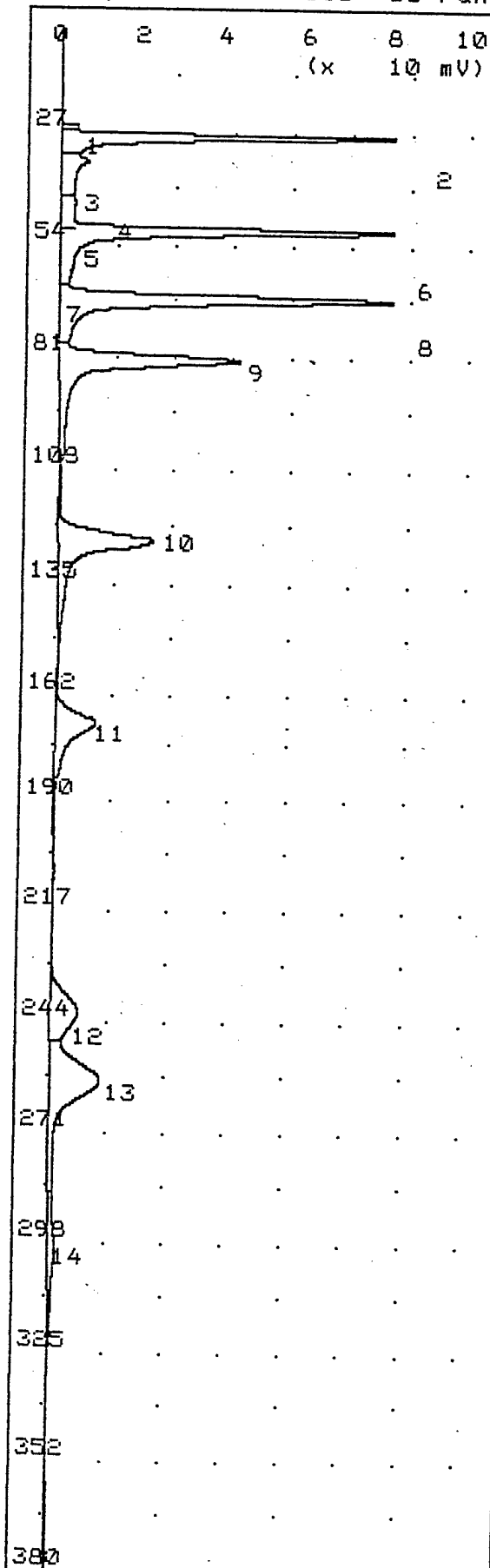


Time Printed: Dec 12,96 17:25
Sample Time: Dec 12,96 17:19
Method
Slope Up 0.500 mV/Sec
Slope Down 1.500 mV/Sec
Min Area 0.000 mVSec
Min Height 0.000 mV
Analysis Delay 0.0 sec
Window Percent 10.0 %
Det Flow 9 ml/min
B/F Flow 9 ml/min
Aux Flow 0 ml/min
Oven Temp 50 C
Amb Temp 36 C
Max Gain 1000
Analysis Time 380.0 sec

Peak Report			
Pk	Compound Name	Area/Conc	R.T.
1	Unknown	6.121 mVS	24.2
2	vinyl chloride	35.06 ppb	26.3
3	Unknown	54.03 mVS	32.2
4	Unknown	0.265 mVS	38.9
5	Unknown	0.061 mVS	42.0
6	1,2-dca	33.55 ppb	48.8
7	Unknown	0.934 mVS	57.8
8	benzene	19.29 ppb	65.6
9	tce	27.69 ppb	80.2
10	Unknown	0.081 mVS	99.2
11	toluene	21.50 ppb	123.3
12	pce	18.49 ppb	168.6
13	ethylbenzene	11.19 ppb	239.6
14	m,p-xylene	27.38 ppb	256.8
15	o-xylene	8.229 ppb	299.7

Notes

Illinois ANGB
Capital Airport
Joe Byrd, Jr.
OpTech
10 ppb standard



Time Printed: Dec 12, 96 17:37

Sample Time: Dec 12, 96 17:31

Method

Slope Up	0.500	mV/Sec
Slope Down	1.500	mV/Sec
Min Area	0.000	mVSec
Min Height	0.000	mV
Analysis Delay	0.0	sec
Window Percent	10.0	%
Det Flow	9	ml/min
B/F Flow	9	ml/min
Aux Flow	0	ml/min
Oven Temp	50	C
Amb Temp	36	C
Max Gain	1000	
Analysis Time	380.0	sec

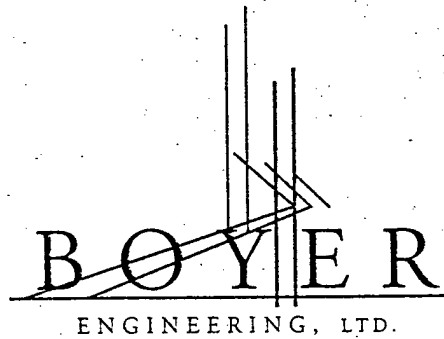
Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	Unknown	6.122 mVS	24.3
2	vinyl chloride	108.0 ppb	26.4
3	Unknown	45.73 mVS	32.3
4	Unknown	0.270 mVS	39.3
5	Unknown	13.00 mVS	42.3
6	1,2-dca	91.12 ppb	49.0
7	Unknown	0.588 mVS	57.6
8	benzene	93.86 ppb	65.6
9	tce	88.59 ppb	80.4
10	toluene	81.54 ppb	123.3
11	pce	81.49 ppb	168.6
12	ethylbenzene	82.27 ppb	240.2
13	m,p-xylene	168.2 ppb	256.5
14	o-xylene	138.1 ppb	297.8

Notes

Illinois ANGB
Capital Airport
Joe Byrd, Jr.
OpTech
100 ppb standard

APPENDIX F
SURVEY DATA



April 11, 1997

Ms. Kathryn Pritchett
OPERATIONAL TECHNOLOGIES CORPORATION
4100 NW Loop 410, Suite 230
San Antonio, Texas 78229

Re: IRP Site No. 1
POL Storage Area
Illinois National Guard
183rd Fighter Wing
Capital Airport
Springfield, Illinois

Dear Kathryn:

Enclosed herewith are coordinates and elevations for the monitor wells and piezometer wells located in IRP Site No. 1.

If you should have any questions or require additional information please call our office.

Sincerely,

BOYER ENGINEERING, LTD.

A handwritten signature in cursive script that reads "Gary Cartwright". The signature is written in dark ink and is positioned above the printed name and title.

Gary Cartwright
Chief of Surveys

GC\me\j239

February 14, 1997

Ms. Kathryn Prichett
OPERATIONAL TECHNOLOGIES CORPORATION
4100 NW Loop 410, Suite 230
San Antonio, Texas 78229

Re: Field Survey
Illinois Air National Guard
183rd Fighter Wing
Capital Municipal Airport
Springfield, Illinois

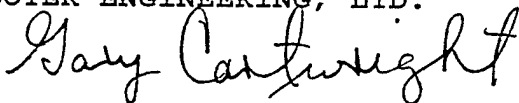
Dear Ms. Prichett:

Enclosed herewith are the revised paper print and data disk of the survey of IRP Site No. 2 as requested.

If you should have any questions or require additional information, please call our office.

Sincerely,

BOYER ENGINEERING, LTD.



Gary Cartwright

J239

IRP SITE NO. 1

POL STORAGE

AREA

DESCRIPTION	NORTHING	EASTING	ELEVATIONS	NOTES	GROUND ELEVATIONS
MW 101	1158670.290	639705.406	582.769	TOP OF CASING	583.298
MW 102	1158933.286	639826.011	583.525	TOP OF CASING	584.015
MW 103	1158742.593	639846.121	584.043	TOP OF CASING	584.200
MW 104	1158766.280	639725.317	583.150	TOP OF CASING	583.456
PZ 101	1158940.410	639676.876	583.472	TOP OF WELL CASING	583.646
PZ 102	1158679.730	639790.220	584.350	TOP OF WELL CASING	584.510
PZ 103	1158827.630	639944.950	583.504	TOP OF WELL CASING	583.681

CAPITAL AIRPORT ELEVATIONS

DESCRIPTION	NORTHING	EASTING	ELEVATION	NOTES
2-SD01	1154621.226	637684.207	576.622	SEDIMENT SAMPLE
2-SD02	1154404.987	638076.431	566.444	SEDIMENT SAMPLE
2-SW01	1154621.197	637684.185	577.221	SURFACE WATER
2-SW02	1154404.725	638076.176	567.333	SURFACE WATER
MW 201	1154627.940	637838.440	586.771	TOP OF WELL CASING
MW 201 B	1154623.162	637846.833	587.211	TOP OF WELL CASING
MW 202	1154675.387	637685.470	583.115	TOP OF WELL CASING
MW 202 B	1154672.119	637696.097	583.651	TOP OF WELL CASING
MW 203	1154895.706	637742.707	588.071	TOP OF WELL CASING
PZ 201	1154869.498	637600.610	586.342	TOP OF CASING
PZ 202	1154812.148	637766.671	585.002	TOP OF CASING
PZ 203	1154691.529	637863.181	585.142	TOP OF CASING
PZ 204	1154149.810	637810.618	586.201	TOP OF CASING
PZ 205	1154033.162	637609.826	584.431	TOP OF CASING
PZ 206	1153812.088	637825.858	583.503	TOP OF CASING
100	1154877.426	637668.974	587.297	TOP OF CASING
101	1154997.238	637415.749	586.032	IRON PIN IN SE CORNER OF APRON IRON PIN IN SW CORNER OF APRON

APPENDIX G
GEOTECHNICAL DATA



January 7, 1997

Operational Technologies Corporation
4100 N.W. Loop 410
Suite 230
San Antonio, Texas 78229-4253

Attn: Ms. Kathryn Pritchett

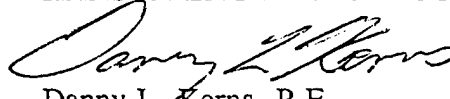
Re: Results of Geotechnical Laboratory Testing
Illinois Air National Guard
183rd Fighter Wing
Capital Airport
Springfield, Illinois

Dear Kathryn:

Enclosed are the results of the laboratory testing performed for the subject project. This completes our services for the project. The organic carbon content and pH test results are combined on one sheet. The moisture content and density test results are included on the cover sheets for the hydraulic conductivity tests. Please contact me if you have any questions regarding this information, or if additional information is required.

Very truly yours,

HANSON ENGINEERS INCORPORATED


Danny L. Kerns, P.E.
Partner

Enclosures

1525 South Sixth Street • Springfield, Illinois 62703-2886 • 217/788-2450 • Fax: 217/788-2503

Corporate Office: Springfield, Illinois
Peoria, Illinois • Rockford, Illinois • La Grange, Illinois • Kansas City, Missouri
Herndon, Virginia • Pleasanton, California • Atlanta, Georgia





ORGANIC CONTENT & pH

Project: CAPITOL MUNICIPAL AIRPORT Job Number: 96S3095

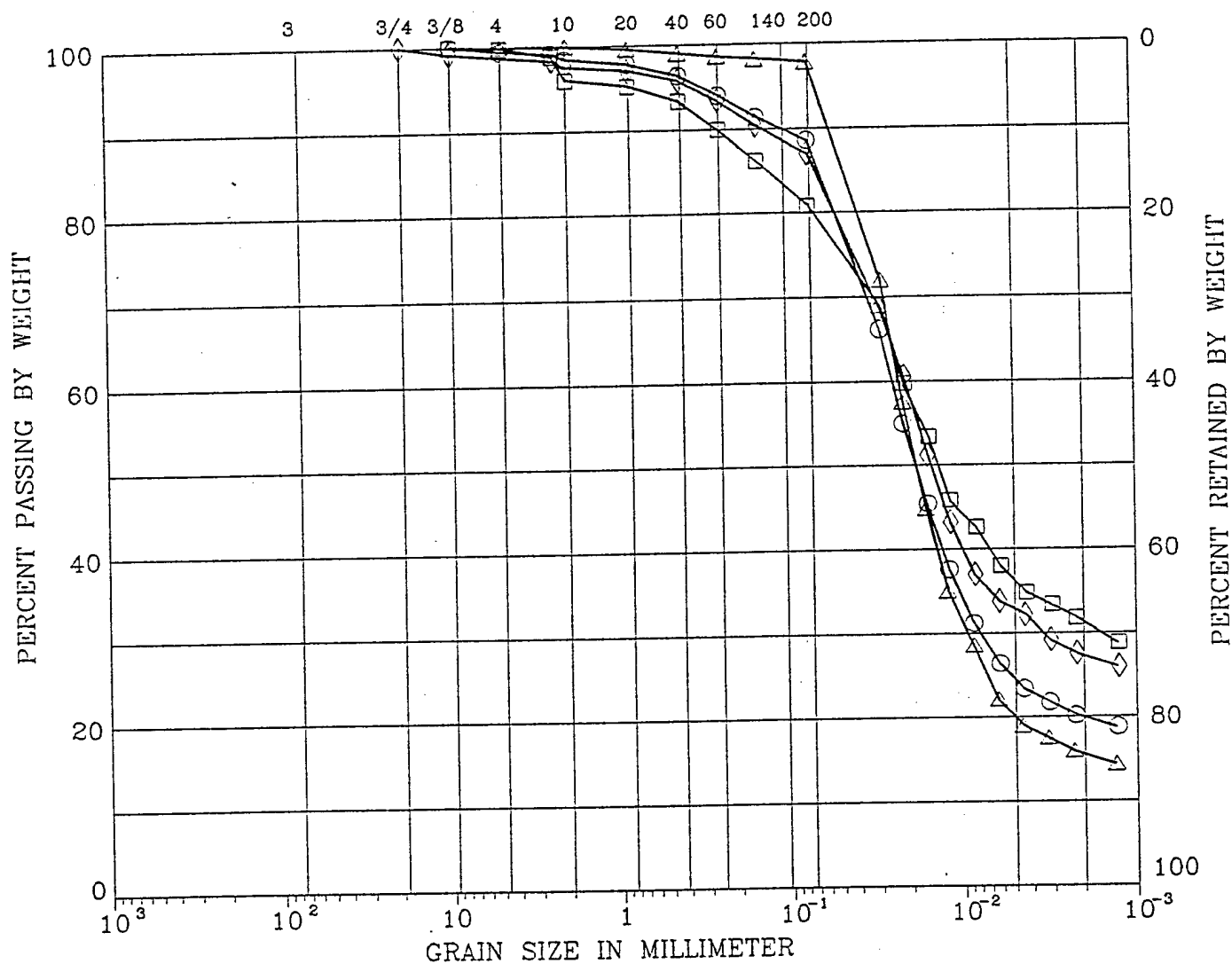
Client: OPERATIONAL TECHNOLOGIES COR Date: 9/20/96

Checked by: _____ Date: _____

Boring/ Sample Number	Oven Dry Weight of Soil+Tare (grams)	Fired Weight of Soil+Tare (grams)	Weight of Tare (grams)	Organic Content (%)	Furnace Temperature (C)	pH
MW201B-1 @ 10.5-12.	140.02	139.34	81.57	1.16	440	7.32
MW201B-2 @15.5-17.0	128.96	128.18	79.41	1.57	440	6.75
MW202B-1 @ 5.5 - 7.0	123.22	122.55	66.21	1.18	440	7.22
MW202B-2 @10.5-12.0	164.87	164.08	108.21	1.39	440	7.50

UNIFIED SOIL CLASSIFICATION

COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	
U.S. SIEVE SIZE IN INCHES			U.S. STANDARD SIEVE No.			HYDROMETER



SYMBOL	BORING	DEPTH (ft)	LL (%)	PI (%)	DESCRIPTION
○	MW201B-1	10.5-12			BRN.VF.SANDY SILTY CLAY / OX. SPOTS.
□	MW201B-2	15.5-17			YEL.BRN.& BRN.VF.SANDY SILTY CLAY / OX.SPOTS.
△	MW202B-1	5.5-7.0			YEL.BRN.& GRAY VF. SANDY SILT (TR.CLAY) / OX. SPOT
◇	MW202B-2	10.5-12			YEL.BRN.& GRAY VF. SANDY SILTY CLAY / OX. SPOTS.

Remark :

96S3095

CAPITOL MUNICIPAL ARIPORT

Hanson
Engineers Inc.

GRAIN SIZE DISTRIBUTION

G E O S O F T - G R A I N S I Z E D I S T R I B U T I O N

Project Name	CAPITOL MUNICIPAL AIRPORT
Identification	96S3095 Figure No.
Remark (if any)	

	Boring/Sample	Depth (ft)	LL (%)	PI (%)	Hydrometer	Sieve (Y/N)	Line
1	MW201B-1	10.5-12	0.00	0.00	1	Y	2
2	MW201B-2	15.5-17	0.00	0.00	1	Y	2
3	MW202B-1	5.5-7.0	0.00	0.00	1	Y	2
4	MW202B-2	10.5-12	0.00	0.00	1	Y	2

Hydrometer	0 -- No Hydrometer Test	1 -- ASTM Testing Procedure 151-H
		2 -- ASTM Testing Procedure 152-H

```
Line Type :  0 -- Data points only           1 -- Curvefit data points
             2 -- Data points connected with straight line
```

```
Retrieve Input Data (Y or N)  N  96s3095    Ex: C:DATA
Process/Save   Data (Y or N)  N  File name without ext.
Exit to DOS      (Y or N)      N
```

Press [ESC] to proceed ...

G E O S O F T [R/GRAIN] HYDROMETER ANALYSIS (ASTM 151-H) OUTPUT SCREEN

Curve No. 1	Boring	MW201B-1	Depth (ft)	10.5-12
Specific Gravity of Soil		2.70	Temperature	Composite
Weight of Airdry Soil (g)		50.00	(Centigrade)	Correction
Wet Weight of Soil + Tare (g)		64.74	18.0	1.0041
Dry Weight of Soil + Tare (g)		64.03	28.0	1.0028
Weight of Tare (g)		15.47	0.0	0.0000

Time (min)	Temp. (Cent.)	Reading	Grain Size (mm)	% Passing By Wt.
2.0	21.3	1.0245	0.0295	66.1
4.0	21.3	1.0210	0.0218	55.0
8.0	21.3	1.0180	0.0160	45.5
15.0	21.4	1.0155	0.0120	37.6
30.0	21.4	1.0135	0.0087	31.2
60.0	21.4	1.0120	0.0062	26.5
120.0	21.6	1.0110	0.0044	23.4
240.0	21.7	1.0105	0.0031	21.8
480.0	21.8	1.0100	0.0022	20.3
1440.0	21.8	1.0095	0.0013	18.7
0.0	0.0	0.0000	0.0000	0.0
0.0	0.0	0.0000	0.0000	0.0

Press [ESC]
to
continue ...
96s3095

G E O S O F T [R/GRAIN] SIEVE ANALYSIS (ASTM D-422-63) OUTPUT SCREEN

Curve No. 1 Boring MW201B-1 Depth (ft) 10.5-12

Total Weight of Dry Soil For Coarse Sieve 271.120
Total Weight of Dry Soil For Fine Sieve 49.280
Sieve No. For Coarse/Fine Sieve Split 10

U.S. Sieve Size/No.	Cumul. Wt. Retained (gm)	% Passing By Wt.	U.S. Sieve Size/No.	Cumul. Wt. Retained (gm)	% Passing By Wt.
3.0 (inch)	0.000	0.0	# 16 (1.18 mm)	0.000	0.0
2.0 (inch)	0.000	0.0	# 20 (0.85 mm)	0.310	97.8
1.5 (inch)	0.000	0.0	# 30 (0.60 mm)	0.000	0.0
1.0 (inch)	0.000	0.0	# 40 (0.425mm)	1.020	96.4
3/4 (inch)	0.000	0.0	# 50 (0.300mm)	0.000	0.0
3/8 (inch)	0.000	0.0	# 60 (0.250mm)	2.210	94.0
# 4 (4.75 mm)	1.500	99.4	# 100 (0.150mm)	3.490	91.5
# 8 (2.38 mm)	2.390	99.1	# 140 (0.106mm)	0.000	0.0
#10 (2.00 mm)	4.170	98.5	# 200 (0.075mm)	4.970	88.5

Press [ESC] to continue ... 96s3095

G E O S O F T [R/GRAIN]

SOIL CLASSIFICATION: ASTM D-2487-83

Curve No. 1

Boring MW201B-1

Depth (ft) 10.5-12

Coeff. of Uniformity (Cu)	=	21.8	Coeff. of Curvature (Cc)	=	2
% Passing No. 4 Sieve (P4)	=	99.4	% Passing No.200 Sieve (P200)	=	88
Liquid Limit (LL)	=	0.00	Plasticity Index (PI)	=	0.00

Soil classifications compatible with the input data :

INORG. SILTS AND CLAYS (ML-CL)
ORGANIC SILTS (OL or OH)
INORGANIC SILTS (ML or MH)
INORGANIC CLAYS (CL or CH)

Enter the desired soil classification : (max. 50 characters)

BRN.VF.SANDY SILTY CLAY / OX. SPOTS.

Press [ESC] to continue ...

96s3095

G E O S O F T [R/GRAIN] HYDROMETER ANALYSIS (ASTM 151-H) OUTPUT SCREEN

Curve No. 2	Boring	MW201B-2	Depth (ft)	15.5-17
Specific Gravity of Soil		2.70	Temperature	Composite
Weight of Airdry Soil (g)		50.00	(Centigrade)	Correction
Wet Weight of Soil + Tare (g)		49.88	18.0	1.0032
Dry Weight of Soil + Tare (g)		49.19	28.0	1.0021
Weight of Tare (g)		15.38	0.0	0.0000

Time (min)	Temp. (Cent.)	Reading	Grain Size (mm)	% Passing By Wt.
2.0	21.3	1.0250	0.0293	69.1
4.0	21.3	1.0220	0.0216	59.7
8.0	21.3	1.0200	0.0156	53.5
15.0	21.4	1.0175	0.0117	45.7
30.0	21.4	1.0165	0.0084	42.6
60.0	21.4	1.0150	0.0060	37.9
120.0	21.6	1.0140	0.0043	34.9
240.0	21.7	1.0135	0.0031	33.4
480.0	21.8	1.0130	0.0022	31.8
1440.0	21.8	1.0120	0.0013	28.7
0.0	0.0	0.0000	0.0000	0.0
0.0	0.0	0.0000	0.0000	0.0

Press [ESC]
to
continue ...
96s3095

G E O S O F T [R/GRAIN] SIEVE ANALYSIS (ASTM D-422-63) OUTPUT SCREEN

Curve No. 2	Boring	MW201B-2	Depth (ft)	15.5-17
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Total Weight of Dry Soil For Coarse Sieve	283.810
Total Weight of Dry Soil For Fine Sieve	49.000
Sieve No. For Coarse/Fine Sieve Split	10

U.S. Sieve Size/No.	Cumul. Wt. Retained (gm)	% Passing By Wt.	U.S. Sieve Size/No.	Cumul. Wt. Retained (gm)	% Passing By Wt.
3.0 (inch)	0.000	0.0	# 16 (1.18 mm)	0.000	0.0
2.0 (inch)	0.000	0.0	# 20 (0.85 mm)	0.410	95.3
1.5 (inch)	0.000	0.0	# 30 (0.60 mm)	0.000	0.0
1.0 (inch)	0.000	0.0	# 40 (0.425mm)	1.360	93.4
3/4 (inch)	0.000	0.0	# 50 (0.300mm)	0.000	0.0
3/8 (inch)	0.000	0.0	# 60 (0.250mm)	3.140	89.9
# 4 (4.75 mm)	0.290	99.9	# 100 (0.150mm)	5.090	86.1
# 8 (2.38 mm)	3.540	98.8	# 140 (0.106mm)	0.000	0.0
# 10 (2.00 mm)	11.110	96.1	# 200 (0.075mm)	7.780	80.8

Press [ESC] to continue ... 96s3095

G E O S O F T [R/GRAIN]

SOIL CLASSIFICATION: ASTM D-2487-83

Curve No. 2

Boring MW201B-2

Depth (ft) 15.5-17

Coeff. of Uniformity (Cu)	=	20.1	Coeff. of Curvature (Cc)	=	0.1
% Passing No. 4 Sieve (P4)	=	99.9	% Passing No.200 Sieve (P200)	=	80.8
Liquid Limit (LL)	=	0.00	Plasticity Index (PI)	=	0.0

Soil classifications compatible with the input data :

INORG. SILTS AND CLAYS (ML-CL)
ORGANIC SILTS (OL or OH)
INORGANIC SILTS (ML or MH)
INORGANIC CLAYS (CL or CH)

Enter the desired soil classification : (max. 50 characters)

YEL.BRN.& BRN.VF.SANDY SILTY CLAY / OX.SPOTS.

Press [ESC] to continue ...

96s3095

G E O S O F T [R/GRAIN] HYDROMETER ANALYSIS (ASTM 151-H) OUTPUT SCREEN

Curve No. 3 Boring MW202B-1
 Specific Gravity of Soil 2.70
 Weight of Airdry Soil (g) 50.00
 Wet Weight of Soil + Tare (g) 63.88
 Dry Weight of Soil + Tare (g) 63.11
 Weight of Tare (g) 12.67

Depth (ft) 5.5-7.0
 Temperature Composite
 (Centigrade) Correction
 18.0 1.0037
 28.0 1.0020
 0.0 0.0000

Time (min)	Temp. (Cent.)	Reading	Grain Size (mm)	% Passing By Wt.
2.0	21.3	1.0255	0.0291	72.1
4.0	21.3	1.0210	0.0218	57.6
8.0	21.4	1.0170	0.0162	44.7
15.0	21.4	1.0140	0.0122	35.1
30.0	21.4	1.0120	0.0088	28.6
60.0	21.4	1.0100	0.0064	22.2
120.0	21.6	1.0090	0.0045	19.1
240.0	21.7	1.0085	0.0032	17.5
480.0	21.8	1.0080	0.0023	15.9
1440.0	21.8	1.0075	0.0013	14.3
0.0	0.0	0.0000	0.0000	0.0
0.0	0.0	0.0000	0.0000	0.0

Press [ESC]
 to
 continue ...
 96s3095

G E O S O F T [R/GRAIN] SIEVE ANALYSIS (ASTM D-422-63) OUTPUT SCREEN

Curve No. 3 Boring MW202B-1 Depth (ft) 5.5-7.0

Total Weight of Dry Soil For Coarse Sieve 227.380
 Total Weight of Dry Soil For Fine Sieve 49.250
 Sieve No. For Coarse/Fine Sieve Split 10

U.S. Sieve Size/No.	Cumul. Wt. Retained (gm)	% Passing By Wt.	U.S. Sieve Size/No.	Cumul. Wt. Retained (gm)	% Passing By Wt.
3.0 (inch)	0.000	0.0	# 16 (1.18 mm)	0.000	0.0
2.0 (inch)	0.000	0.0	# 20 (0.85 mm)	0.200	99.5
1.5 (inch)	0.000	0.0	# 30 (0.60 mm)	0.000	0.0
1.0 (inch)	0.000	0.0	# 40 (0.425mm)	0.460	99.0
3/4 (inch)	0.000	0.0	# 50 (0.300mm)	0.000	0.0
3/8 (inch)	0.000	0.0	# 60 (0.250mm)	0.680	98.6
# 4 (4.75 mm)	0.050	100.0	# 100 (0.150mm)	0.830	98.3
# 8 (2.38 mm)	0.000	0.0	# 140 (0.106mm)	0.000	0.0
# 10 (2.00 mm)	0.120	99.9	# 200 (0.075mm)	1.040	97.8

Press [ESC] to continue ... 96s3095

G E O S O F T [R/GRAIN]

SOIL CLASSIFICATION: ASTM D-2487-83

Curve No. 3

Boring MW202B-1

Depth (ft) 5.5-7.0

Coeff. of Uniformity (Cu) =	18.8	Coeff. of Curvature (Cc) =	3.2
% Passing No. 4 Sieve (P4) =	100.0	% Passing No.200 Sieve (P200) =	97.8
Liquid Limit (LL) =	0.00	Plasticity Index (PI) =	0.00

Soil classifications compatible with the input data :

INORG. SILTS AND CLAYS (ML-CL)
ORGANIC SILTS (OL or OH)
INORGANIC SILTS (ML or MH)
INORGANIC CLAYS (CL or CH)

Enter the desired soil classification : (max. 50 characters)

YEL.BRN.& GRAY VF. SANDY SILT (TR.CLAY) / OX. SPOT

Press [ESC] to continue ...

96s3095

G E O S O F T [R/GRAIN] HYDROMETER ANALYSIS (ASTM 151-H) OUTPUT SCREEN

Curve No. 4	Boring	MW202B-2	Depth (ft)	10.5-12
Specific Gravity of Soil		2.70	Temperature	Composite
Weight of Airdry Soil (g)		50.00	(Centigrade)	Correction
Wet Weight of Soil + Tare (g)		61.33	18.0	1.0038
Dry Weight of Soil + Tare (g)		60.34	28.0	1.0025
Weight of Tare (g)		16.07	0.0	0.0000

Time (min)	Temp. (Cent.)	Reading	Grain Size (mm)	% Passing By Wt.
2.0	21.3	1.0250	0.0293	68.6
4.0	21.3	1.0225	0.0214	60.6
8.0	21.4	1.0195	0.0157	51.2
15.0	21.4	1.0170	0.0118	43.2
30.0	21.4	1.0150	0.0085	36.9
60.0	21.4	1.0140	0.0061	33.7
120.0	21.6	1.0135	0.0043	32.2
240.0	21.7	1.0125	0.0031	29.1
480.0	21.8	1.0120	0.0022	27.6
1440.0	21.8	1.0115	0.0013	26.0
0.0	0.0	0.0000	0.0000	0.0
0.0	0.0	0.0000	0.0000	0.0

Press [ESC]
to
continue ...
96s3095

G E O S O F T [R/GRAIN] SIEVE ANALYSIS (ASTM D-422-63) OUTPUT SCREEN

Curve No. 4	Boring	MW202B-2	Depth (ft)	10.5-12
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Total Weight of Dry Soil For Coarse Sieve	278.890
Total Weight of Dry Soil For Fine Sieve	49.230
Sieve No. For Coarse/Fine Sieve Split	10

U.S. Sieve Size/No.	Cumul. Wt. Retained (gm)	% Passing By Wt.	U.S. Sieve Size/No.	Cumul. Wt. Retained (gm)	% Passing By Wt.
3.0 (inch)	0.000	0.0	# 16 (1.18 mm)	0.000	0.0
2.0 (inch)	0.000	0.0	# 20 (0.85 mm)	0.240	97.1
1.5 (inch)	0.000	0.0	# 30 (0.60 mm)	0.000	0.0
1.0 (inch)	0.000	0.0	# 40 (0.425mm)	0.890	95.8
3/4 (inch)	0.000	0.0	# 50 (0.300mm)	0.000	0.0
3/8 (inch)	2.340	99.2	# 60 (0.250mm)	2.130	93.3
# 4 (4.75 mm)	0.000	0.0	# 100 (0.150mm)	3.600	90.4
# 8 (2.38 mm)	4.700	98.3	# 140 (0.106mm)	0.000	0.0
# 10 (2.00 mm)	6.790	97.6	# 200 (0.075mm)	5.370	86.9

Press [ESC] to continue ... 96s3095

G E O S O F T [R/GRAIN]

SOIL CLASSIFICATION: ASTM D-2487-83

Curve No. 4

Boring MW202B-2

Depth (ft) 10.5-12

Coeff. of Uniformity (Cu) =	19.1	Coeff. of Curvature (Cc) =	0.5
% Passing No. 4 Sieve (P4) =	98.6	% Passing No.200 Sieve (P200) =	86.9
Liquid Limit (LL) =	0.00	Plasticity Index (PI) =	0.00

Soil classifications compatible with the input data :

INORG. SILTS AND CLAYS (ML-CL)
ORGANIC SILTS (OL or OH)
INORGANIC SILTS (ML or MH)
INORGANIC CLAYS (CL or CH)

Enter the desired soil classification : (max. 50 characters)

YEL.BRN.& GRAY VF. SANDY SILTY CLAY / OX. SPOTS.

Press [ESC] to continue ...

96s3095



CONSTANT HEAD PERMEABILITY TEST

JOB NUMBER: 96S3095 TEST DATE: 12/19/96
CLIENT: OPERATIONAL TECHNOLOGIES CORP. BORING #: MW201B
JOB DESCRIPTION: CAPITOL MUNICIPAL AIRPORT SPFLD., I SAMPLE #: 1
SAMPLE DESCRIPTION: BRN. VF. SANDY CLAYEY SILT / OX. SPO DEPTH (FT): 10.5-12.0
FILE NAME: 2011BC

WATER CONTENT OF TRIMMINGS

SPECIMEN WEIGHT (G)	<u>153.38</u>	BEFOR	AFTER
SPECIMEN HEIGHT (IN)	<u>3.092</u>	TEST	TEST
DIAMETER (IN)	<u>1.381</u>	TARE + WET SOIL (G)	<u>87.34</u>
AREA (SQ IN)	<u>1.498</u>	TARE + DRY SOIL (G)	<u>73.94</u>
VOLUME (CU IN)	<u>4.631</u>	TARE (G)	<u>15.52</u>
WET DENSITY (PCF)	<u>126.16</u>	WATER (G)	<u>13.40</u> <u>0.00</u>
DRY DENSITY (PCF)	<u>102.62</u>	DRY SOIL (G)	<u>58.42</u> <u>0.00</u>
WT. DRY SOIL (G)	<u>124.76</u>	WATER CONTENT (%)	<u>22.94</u> <u>#DIV/0!</u>
VOLUME DRY SOIL (CU IN)	<u>2.820</u>		
SP.GR. ASSUMED	<u>2.70</u>		
POROSITY (%)	<u>39.12</u>	STD. MAX. DEN.(LBS/CU.FT.)	<u></u>
HEIGHT OF HEAD (PSI)	<u>3.30</u>	OPTIMUM MOISTURE (%)	<u></u>
HYDRAULIC GRADIENT	<u>29.5</u>	% COMPACTION	<u>#DIV/0!</u>
1/4 PORE VOLUME	<u>7.42</u>	PRESSURE HEAD (CM H2O)	<u>189.86</u>
		PANEL NUMBER	<u></u>
TEST METHOD USED: <u>ASTM D5084</u>		PERMEANT USED: <u>TAP WATER</u>	



CONSTANT HEAD PERMEABILITY TEST

JOB NUMBER: 96S3095 TEST DATE: 12/30/96

CLIENT: OPERATIONAL TECHNOLOGIES CORPORATION BORING #: MW201B

JOB DESCRIPTION: CAPITOL MUNICIPAL AIRPORT SAMPLE #: 1

DEPTH (FT): 10.5-12.0

SPECIMEN HEIGHT (IN) 3.092 HEIGHT OF HEAD (PSI) 3.30

DIAMETER (IN) 1.381 PRESSURE HEAD (CM H₂O) 232.05

AREA (SQ IN) 1.498 PANEL NUMBER 5

START DATE	START TIME	STOP DATE	STOP TIME	INCREMENT. FLOW (CC)	TOTAL FLOW (CC)	INCREMENT. TIME (MIN)	TOTAL TIME (MIN)	INCREMENTAL PERMEABILITY (CM/SEC)	AVERAGE PERMEABILITY (CM/SEC)
12/19/96	8:34	12/20/96	7:41	4.40	4.4000	1387.00	1387.00	1.85E-07	1.85E-07
12/20/96	7:41	12/23/96	6:56	14.00	18.4000	4275.00	5662.00	1.91E-07	1.88E-07
12/23/96	16:08	12/24/96	7:30	9.70	28.1000	922.00	6584.00	6.14E-07	3.30E-07
12/24/96	7:30	12/24/96	15:56	2.20	30.3000	506.00	7090.00	2.54E-07	3.11E-07
12/24/96	15:57	12/26/96	7:58	8.88	39.1800	2401.00	9491.00	2.16E-07	3.19E-07
12/26/96	7:58	12/27/96	8:42	5.92	45.1000	1484.00	10975.00	2.33E-07	3.29E-07
12/27/96	8:42	12/30/96	7:13	40.70	85.8000	4231.00	15206.00	5.62E-07	3.16E-07
12/30/96	7:18	12/31/96	7:43	4.07	89.8700	1465.00	16671.00	1.62E-07	2.93E-07
12/31/96	7:43	1/2/97	6:55	4.44	94.3100	2832.00	19503.00	9.15E-08	2.62E-07
1/2/97	6:55	1/3/97	7:55	2.59	96.9000	1500.00	21003.00	1.01E-07	2.29E-07
1/3/97	7:55	1/6/97	7:18	5.92	102.8200	4283.00	25286.00	8.07E-08	1.09E-07



CONSTANT HEAD PERMEABILITY TEST

JOB NUMBER: 96S3095 TEST DATE: 12/19/96
CLIENT: OPERATIONAL TECHNOLOGIES CORP. BORING #: MW201B
JOB DESCRIPTION: CAPITOL MUNICIPAL AIRPORT SPFLD., I SAMPLE #: 2
SAMPLE DESCRIPTION: YEL. BRN. & GRAY VF. SANDY CLAYEY DEPTH (FT): 15.5-17.0
SILT / OX. SPOTS. FILE NAME: 2012BC

WATER CONTENT OF TRIMMINGS

		BEFOR	AFTER
		TEST	TEST
SPECIMEN WEIGHT (G)	<u>145.26</u>		
SPECIMEN HEIGHT (IN)	<u>2.963</u>		
DIAMETER (IN)	<u>1.380</u>	TARE + WET SOIL (G)	<u>78.86</u>
AREA (SQ IN)	<u>1.496</u>	TARE + DRY SOIL (G)	<u>65.60</u>
VOLUME (CU IN)	<u>4.432</u>	TARE (G)	<u>16.07</u>
WET DENSITY (PCF)	<u>124.86</u>	WATER (G)	<u>13.26</u> <u>0.00</u>
DRY DENSITY (PCF)	<u>98.50</u>	DRY SOIL (G)	<u>49.53</u> <u>0.00</u>
WT. DRY SOIL (G)	<u>114.58</u>	WATER CONTENT (%)	<u>26.77</u> <u>#DIV/0!</u>
VOLUME DRY SOIL (CU IN)	<u>2.590</u>		
SP.GR. ASSUMED	<u>2.70</u>		
POROSITY (%)	<u>41.56</u>	STD. MAX. DEN.(LBS/CU.FT.)	<u></u>
HEIGHT OF HEAD (PSI)	<u>3.20</u>	OPTIMUM MOISTURE (%)	<u></u>
HYDRAULIC GRADIENT	<u>29.9</u>	% COMPACTION	<u>#DIV/0!</u>
1/4 PORE VOLUME	<u>7.55</u>	PRESSURE HEAD (CM H2O)	<u>189.86</u>
		PANEL NUMBER	<u>6</u>
TEST METHOD USED: <u>ASTM D5084</u>		PERMEANT USED: <u>TAP WATER</u>	



CONSTANT HEAD PERMEABILITY TEST

JOB NUMBER: 96S3095

CLIENT: OPERATIONAL TECHNOLOGIES CORPORATION

JOB DESCRIPTION: CAPITOL MUNICIPAL AIRPORT

TEST DATE: 12/30/96
BORING #: MW201B
SAMPLE #: 2
DEPTH (FT): 15.5-17.0

SPECIMEN HEIGHT (IN) 2.963
DIAMETER (IN) 1.380
AREA (SQ IN) 1.496

HEIGHT OF HEAD (PSI) 3.20
PRESSURE HEAD (CM H₂O) 225.02
PANEL NUMBER 6

START DATE	START TIME	STOP DATE	STOP TIME	INCREMENTAL FLOW (CC)	TOTAL FLOW (CC)	INCREMENTAL TIME (MIN)	TOTAL TIME (MIN)	INCREMENTAL PERMEABILITY (CM/SEC)	AVERAGE PERMEABILITY (CM/SEC)
12/19/96	8:38	12/20/96	7:41	0.50	0.5000	1383.00	1383.00	2.09E-08	2.09E-08
12/20/96	7:41	12/23/96	6:58	0.90	1.4000	4277.00	5660.00	1.22E-08	1.65E-08
12/23/96	6:58	12/24/96	7:30	0.30	1.7000	1472.00	7132.00	1.18E-08	1.49E-08
12/24/96	7:30	12/26/96	7:58	0.50	2.2000	2908.00	10040.00	9.93E-09	1.37E-08
12/26/96	7:58	12/27/96	8:58	0.20	2.4000	1500.00	11540.00	7.70E-09	1.04E-08
12/27/96	8:58	12/30/96	7:16	1.00	3.4000	4218.00	15758.00	1.37E-08	1.08E-08
12/30/96	7:16	12/31/96	7:43	0.30	3.7000	1467.00	17225.00	1.18E-08	1.08E-08
12/31/96	7:43	1/2/97	6:55	0.60	4.3000	2832.00	20057.00	1.22E-08	1.14E-08
1/2/97	6:55	1/3/97	7:55	0.20	4.5000	1500.00	21557.00	7.70E-09	1.14E-08
1/3/97	7:55	1/6/97	7:18	0.70	5.2000	4283.00	25840.00	9.44E-09	1.03E-08



CONSTANT HEAD PERMEABILITY TEST

JOB NUMBER: 96S3095 TEST DATE: 12/19/96
CLIENT: OPERATIONAL TECHNOLOGIES CORP. BORING #: MW202B
JOB DESCRIPTION: CAPITOL MUNICIPAL AIRPORT SPFLD., I SAMPLE #: 1A
SAMPLE DESCRIPTION: YEL. BRN. & GRAY VF. SANDY SILT DEPTH (FT): 5.5-7.0
(TR. CLAY) / OX. SPOTS. FILE NAME: 202BC1

WATER CONTENT OF TRIMMINGS

		BEFOR	AFTER
		TEST	TEST
SPECIMEN WEIGHT (G)	<u>167.24</u>		
SPECIMEN HEIGHT (IN)	<u>3.179</u>		
DIAMETER (IN)	<u>1.423</u>	TARE + WET SOIL (G)	<u>71.63</u>
AREA (SQ IN)	<u>1.590</u>	TARE + DRY SOIL (G)	<u>59.39</u>
VOLUME (CU IN)	<u>5.056</u>	TARE (G)	<u>15.96</u>
WET DENSITY (PCF)	<u>126.01</u>	WATER (G)	<u>12.24</u> <u>0.00</u>
DRY DENSITY (PCF)	<u>98.31</u>	DRY SOIL (G)	<u>43.43</u> <u>0.00</u>
WT. DRY SOIL (G)	<u>130.47</u>	WATER CONTENT (%)	<u>28.18</u> <u>#DIV/0!</u>
VOLUME DRY SOIL (CU IN)	<u>2.949</u>		
SP.GR. ASSUMED	<u>2.70</u>		
POROSITY (%)	<u>41.67</u>	STD. MAX. DEN.(LBS/CU.FT.)	<u></u>
HEIGHT OF HEAD (PSI)	<u>3.40</u>	OPTIMUM MOISTURE (%)	<u></u>
HYDRAULIC GRADIENT	<u>29.6</u>	% COMPACTION	<u>#DIV/0!</u>
1/4 PORE VOLUME	<u>8.63</u>	PRESSURE HEAD (CM H2O)	<u>189.86</u>
		PANEL NUMBER	<u>-7</u>
TEST METHOD USED: <u>ASTM D5084</u>		PERMEANT USED: <u>TAP WATER</u>	



CONSTANT HEAD PERMEABILITY TEST

JOB NUMBER: 96S3095

CLIENT: OPERATIONAL TECHNOLOGIES CORPORATION

JOB DESCRIPTION: CAPITOL MUNICIPAL AIRPORT

TEST DATE: 12/30/96

BORING #: MW202

SAMPLE #: 1A

DEPTH (FT): 5.5-7.0

SPECIMEN HEIGHT (IN) 3.163

DIAMETER (IN) 1.444

AREA (SQ IN) 1.638

HEIGHT OF HEAD (PSI) 3.40

PRESSURE HEAD (CM H₂O) 239.08

PANEL NUMBER 8

START DATE	START TIME	STOP DATE	STOP TIME	INCREMENT. FLOW (CC)	TOTAL FLOW (CC)	INCREMENT. TIME (MIN)	TOTAL TIME (MIN)	INCREMENTAL PERMEABILITY (CM/SEC)	AVERAGE PERMEABILITY (CM/SEC)
12/23/96	9:05	12/23/96	16:08	1.90	1,9000	423.00	423.00	2.38E-07	2.38E-07
12/23/96	16:08	12/24/96	7:32	3.90	5.8000	924.00	1347.00	2.24E-07	2.31E-07
12/24/96	6:58	12/24/96	15:54	2.00	7.8000	536.00	1883.00	1.98E-07	2.20E-07
12/24/96	15:55	12/26/96	8:00	10.40	18.2000	2405.00	4288.00	2.29E-07	2.22E-07
12/26/96	8:00	12/27/96	9:00	6.40	24.6000	1500.00	5788.00	2.26E-07	2.19E-07
12/27/96	9:00	12/30/96	7:16	16.80	41.4000	4216.00	10004.00	2.11E-07	2.16E-07
12/30/96	7:16	12/31/96	7:44	5.60	47.0000	1468.00	11472.00	2.02E-07	2.17E-07
12/31/96	7:44	1/2/97	6:55	9.60	56.6000	2831.00	14303.00	1.80E-07	2.05E-07
1/2/97	6:55	1/3/97	7:55	5.20	61.8000	1500.00	15803.00	1.84E-07	1.94E-07
1/3/97	7:55	1/6/97	7:18	13.60	75.4000	4283.00	20086.00	1.68E-07	1.84E-07



CONSTANT HEAD PERMEABILITY TEST

JOB NUMBER: 96S3095 TEST DATE: 12/19/96
CLIENT: OPERATIONAL TECHNOLOGIES CORP. BORING #: MW202B
JOB DESCRIPTION: CAPITOL MUNICIPAL AIRPORT SPFLD., I SAMPLE #: 2
SAMPLE DESCRIPTION: YEL. BRN. & GRAY VF.-F. SANDY SILTY DEPTH (FT): 10.5-12.0
CLAY / OX. SPOTS. FILE NAME: 202BC2

WATER CONTENT OF TRIMMINGS

SPECIMEN WEIGHT (G)	<u>161.90</u>	BEFOR	AFTER
SPECIMEN HEIGHT (IN)	<u>3.288</u>	TEST	TEST
DIAMETER (IN)	<u>1.342</u>	TARE + WET SOIL (G)	<u>85.13</u>
AREA (SQ IN)	<u>1.414</u>	TARE + DRY SOIL (G)	<u>71.80</u>
VOLUME (CU IN)	<u>4.651</u>	TARE (G)	<u>15.39</u>
WET DENSITY (PCF)	<u>132.61</u>	WATER (G)	<u>13.33</u> <u>0.00</u>
DRY DENSITY (PCF)	<u>107.27</u>	DRY SOIL (G)	<u>56.41</u> <u>0.00</u>
WT. DRY SOIL (G)	<u>130.95</u>	WATER CONTENT (%)	<u>23.63</u> <u>#DIV/0!</u>
VOLUME DRY SOIL (CU IN)	<u>2.960</u>		
SP.GR. ASSUMED	<u>2.70</u>		
POROSITY (%)	<u>36.36</u>	STD. MAX. DEN.(LBS/CU.FT.)	<u></u>
HEIGHT OF HEAD (PSI)	<u>3.50</u>	OPTIMUM MOISTURE (%)	<u></u>
HYDRAULIC GRADIENT	<u>29.5</u>	% COMPACTION	<u>#DIV/0!</u>
1/4 PORE VOLUME	<u>6.93</u>	PRESSURE HEAD (CM H2O)	<u>189.86</u>
		PANEL NUMBER	<u>7</u>
TEST METHOD USED: <u>ASTM D5084</u>		PERMEANT USED: <u>TAP WATER</u>	



CONSTANT HEAD PERMEABILITY TEST

JOB NUMBER: 96S3095

CLIENT: OPERATIONAL TECHNOLOGIES CORPORATION

JOB DESCRIPTION: CAPITOL MUNICIPAL AIRPORT

TEST DATE: 12/30/96
BORING #: MW202B
SAMPLE #: 2
DEPTH (FT): 10.5-12.0

SPECIMEN HEIGHT (IN) 3.288
DIAMETER (IN) 1.342
AREA (SQ IN) 1.414

HEIGHT OF HEAD (PSI) 3.50
PRESSURE HEAD (CM H₂O) 246.11
PANEL NUMBER 7

START DATE	START TIME	STOP DATE	STOP TIME	INCREMENT: FLOW (CC)	TOTAL FLOW (CC)	INCREMENT: TIME (MIN)	TOTAL TIME (MIN)	INCREMENTAL PERMEABILITY (CM/SEC)	AVERAGE PERMEABILITY (CM/SEC)
12/19/96	8:42	12/20/96	7:43	1.00	1.0000	1381.00	1381.00	4.49E-08	4.49E-08
12/20/96	7:43	12/23/96	6:59	3.40	4.4000	4276.00	5657.00	4.93E-08	4.71E-08
12/23/96	6:58	12/24/96	7:31	1.00	5.4000	1473.00	7130.00	4.21E-08	4.54E-08
12/24/96	7:31	12/26/96	7:59	2.00	7.4000	2908.00	10038.00	4.26E-08	4.47E-08
12/26/96	7:58	12/27/96	8:59	1.10	8.5000	1501.00	11539.00	4.54E-08	4.48E-08
12/27/96	8:59	12/30/96	7:16	3.10	11.6000	4217.00	15756.00	4.56E-08	4.39E-08
12/30/96	7:16	12/31/96	7:44	1.00	12.6000	1468.00	17224.00	4.22E-08	4.40E-08
12/31/96	7:44	1/2/97	6:55	1.90	14.5000	2831.00	20055.00	4.16E-08	4.37E-08
1/2/97	6:55	1/3/97	7:55	1.00	15.5000	1500.00	21555.00	4.13E-08	4.27E-08
1/3/97	7:55	1/6/97	7:18	2.60	18.1000	4283.00	25838.00	3.76E-08	4.07E-08



NEY Environmental

(516) 625-5500 FAX: (516) 625-1274

Chain of Custody Record

page #: 1 of 1

Client Name: Operational Technologies Corp.
Address: 14100 NW Loop 470 Ste 230
San Antonio, TX 78229

Project Manager: Kathryn Pritchard
Phone: (210) 731-0000 X294 Fax: (210) 731-0041

Project Name: Capital EE/CA
Project Number: 1315-264/4A

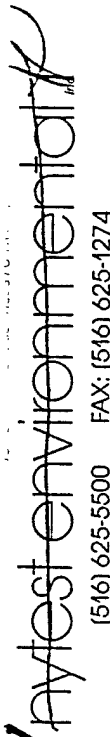
P.O. # _____
Analytical Protocol: _____
Deliverables: _____
Sampled By: Kathryn Pritchard

No. of Containers	Analysis Requested					Bin #s In/Out (For Lab Use Only)	Comments
	pH (ASTM D4972)	Dissolved Oxygen (ASTM D4974)	Vol. Hydraulic Conductivity (ASTM D2216)	Moisture Content (ASTM D2216)	Soil Dry Density (ASTM D2930)		
3	✓	✓	✓	✓	✓		
3	✓	✓	✓	✓	✓		
3	✓	✓	✓	✓	✓		
3	✓	✓	✓	✓	✓		

Analysis Requested: Grain Size Analysis (ASTM D422)
Unconsolidated State and Hydrometer

Received by:		Date / Time	Lab Use Only	
Print Name:	Signature	Date / Time	Custody Seals:	Intact
<u>Kathryn Pritchard</u>	<u>[Signature]</u>	<u>12/15/15</u>		
Relinquished by:			Sample Rec'd in Good Condition?:	Y N
Print Name:			Sample Temperature: _____	Degrees Celsius
Relinquished by:			INSPECTED BY:	
Print Name:			COMMENTS:	
Relinquished by:				
Print Name:				

Special Instructions:



Chain of Custody Record

Chain of Custody Record

No. of Containers	Analysis Requested						Bin #'s In/Out (For Lab Use Only)
	<p>pH (ASTM D4972)</p> <p>Organic Carbon Content (ASTM D 2974)</p> <p>Vol. Hydraulic Conductivity (ASTM D 2216)</p> <p>Moisture Content (ASTM D 2216)</p> <p>Soil Dry Density (ASTM D 2937)</p> <p>Grain Size Analysis (ASTM D 422)</p> <p>Compacted Sieve and Hydrometer</p>						
Login #:		Nyltest Environmental Inc.		Date Shipped:		SDG #:	
Ship to:		60 Seaview Blvd		Carrier:		Air Bill #:	
		Port Washington N.Y. 11050				Cooler #:	
		Attn.: Sample Control				C of C #:	

NEI QT #:	Comments
✓	✓
3	✓
3	✓
3	✓
3	✓
0	
✓	

Date / Time		Lab Use Only			
		Custody Seals:	Intact	Broken	Absent
		Sample Rec'd in Good Condition? Y N			
		Sample Temperature: _____ Degrees Celsius			
		INSPECTED BY: _____			
		COMMENTS: _____			

Special Instructions:

RECEIVED

APPENDIX H
INVESTIGATIVE DERIVED WASTE MANAGEMENT

APPENDIX H

INVESTIGATIVE DERIVED WASTE MANAGEMENT

During the field investigation at IRP Sites No. 1 and No. 2 at the 183rd FW at Capital Municipal Airport in December 1996, a total of twelve 55-gallon drums were used in storage of Investigative Derived Waste (IDW). The IDW analytical results were presented to the base environmental coordinator, and the drums and contents were properly disposed.



OPERATIONAL TECHNOLOGIES
CORPORATION

28 January 1997

Environmental Coordinator
183rd Fighter Wing
Capital Municipal Airport
3101 J. David Jones Parkway
Springfield, Illinois 62707-5000

ATTN: Lt. Deborah S. Hamrick

Subject: Analytical Data for the Investigative-Derived Waste
IRP Sites No. 1 and No. 2
183rd Fighter Wing
Illinois Air National Guard, Springfield, Illinois

Dear Lt. Hamrick:

This letter documents the transfer of information on the investigative-derived waste (IDW) that was accumulated during the field investigation at IRP Sites No. 1 and No. 2 in December 1996. Nine drums containing IDW are located on the southeastern corner of the Charlie Ramp at IRP Site No. 2 (see attached figure and IDW log). As per instructed by the Springfield Airport Authority, barricades with lights and flags are surrounding these drums as a safety precaution since aircrafts use this ramp. Two drums containing purge water are located by the monitor wells (MW201 and MW202 clusters) at IRP Site No. 2. Only one drum containing purge water is located at IRP Site No. 1.

Drums No. 1 and No. 2 contain soil cuttings from drilling the borehole for monitor well MW201B and Drums No. 3 and No 4 contain soil cuttings from drilling the borehole for monitor well MW202B. One soil sample was collected to represent each borehole. The soil samples were analyzed for TCLP, VOCs and PPMs (see attached laboratory reports). No VOCs and PPMs were detected in these soil samples.

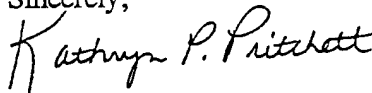
Drum No. 5 contains the PPE for the field investigation. The PID reading that were recorded during the field investigation were less than 10 ppm.

Drums No. 6, No. 7, and No. 8 contain fluids from the decontamination procedure for the field investigation at IRP Site No. 2. One water sample was collected from each drum and analyzed for VOCs and PPMs (see attached laboratory reports). VOCs, benzene and toluene, were detected in the water samples at maximum concentrations (Drum No. 7) of 1.3 $\mu\text{g/L}$ and 3.4 $\mu\text{g/L}$, respectively (see attached table). The metals, copper and zinc, were detected at maximum concentrations (Drum No. 6) of 35 $\mu\text{g/L}$ and 120 $\mu\text{g/L}$, respectively (see attached table).

Drums No. 9, No. 10, and No. 11, contain purge water from the monitor wells at IRP Site No. 2 and Drum No. 12 contains purge water from the monitor wells at IRP Site No. 1. Groundwater samples were collected for chemical analyses from all monitor wells at IRP Sites No. 1 and No. 2 during the field investigation. A summary of the maximum concentrations of the analytes detected in the groundwater samples are presented in an attached table. The contaminants of concern (VOCs) are cis-1,2-Dichloroethene (cis-1,2-DCE) and vinyl chloride and these compounds were detected at maximum concentrations (Drum No. 10) of 97 µg/L and 36 µg/L, respectively. Lead is detected at concentrations above ARAR in all groundwater samples, with a maximum concentration (Drum No. 10) of 170 µg/L. Chromium and nickel were detected at maximum concentrations (Drum No. 10) of 230 µg/L and 340 µg/L, respectively. Arsenic was also detected above ARAR in groundwater samples from IRP Site No. 1 (Drum No. 12) at a concentration of 72 µg/L.

Operational Technologies Corporation appreciates the opportunity to provide environmental services to the Air National Guard. If you have any questions concerning this document, please call me at (210) 731-0000, Ext. 207.

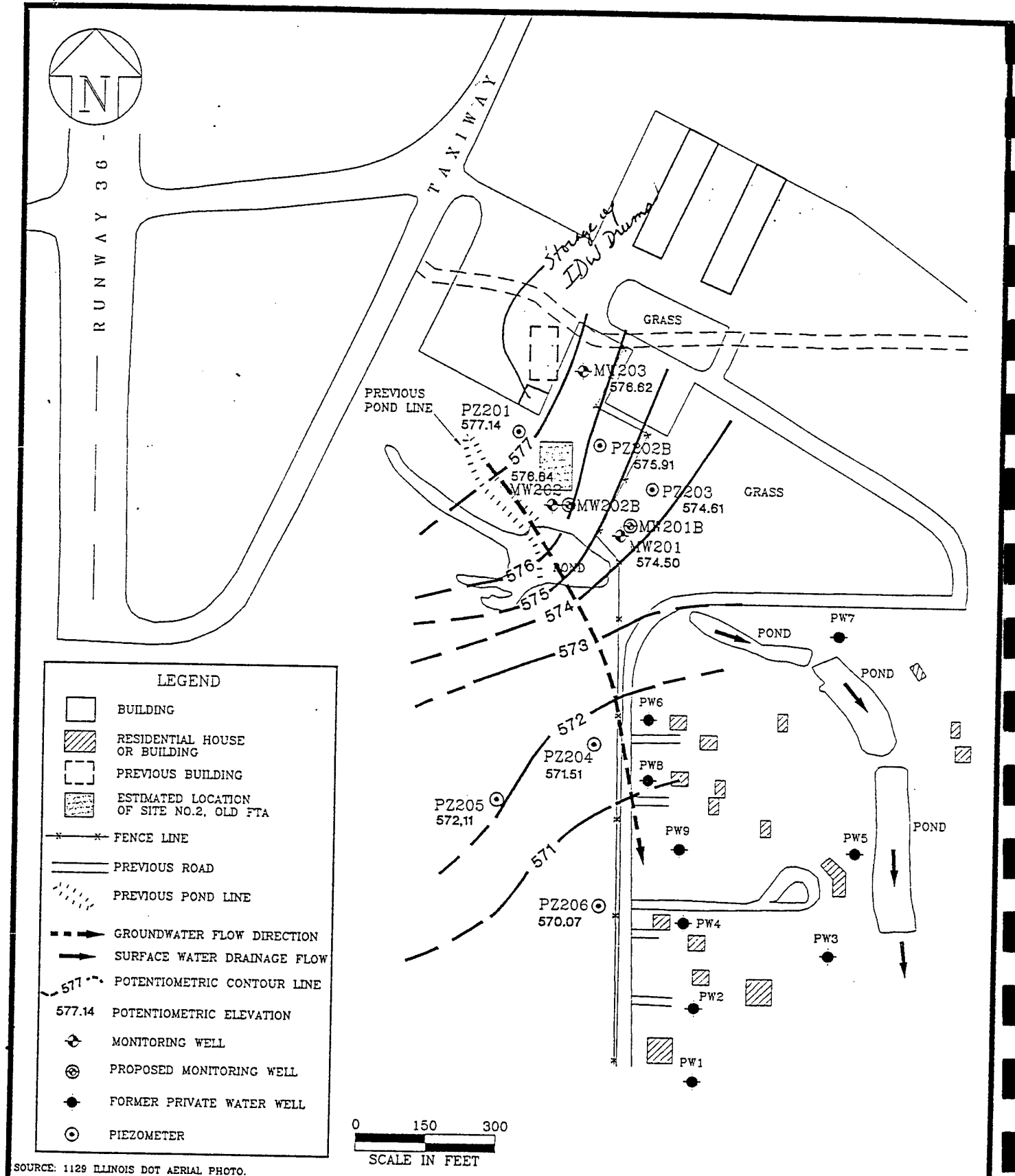
Sincerely,



Kathryn P. Pritchett
Project Manager

Enclosures: As stated

cc: Sharon Geil, ANGRC/CEVR
John Morris, OpTech
ANG Files, OpTech



SOURCE: 1129 ILLINOIS DOT AERIAL PHOTO.

DRAFT
FIGURE 6.2

ILLINOIS\MAIN-4

PROPOSED MONITORING WELL
AND SEDIMENT/SURFACE WATER SAMPLING
LOCATIONS AND POTENTIOMETRIC
SURFACE MAP AT IRP SITE NO.2, OLD FTA
183rd FW, Illinois ANG
Springfield, Illinois

OPTTECH
OPERATIONAL TECHNOLOGIES
CORPORATION

OCTOBER 1996

Analytes Detected in the Decontamination Water IRP Site No. 2 183rd Fighter Wing, Illinois ANG Springfield, Illinois			
Analyte	Drum No. 6	Drum No. 7	Drum No. 8
VOCs (ug/L)			
Benzene	5.0 U	1.3	0.5 U
Toluene	10 U	3.4	1.5
PPMs (ug/L)			
Copper	35	25 U	25 U
Zinc	120	21	20 U

Maximum Concentrations of Analytes Detected in the Purge Water IRP Sites No. 1 and No. 2 183rd Fighter Wing, Illinois ANG Springfield, Illinois				
Analyte	Drum No. 9 MW201, MW202, and MW203	Drum No. 10 MW202 and MW202B	Drum No. 11 MW201 and MW201B	Drum No. 12 MW101, MW102, MW103, and MW104
VOCs (ug/L)				
Benzene	0.8	1.1	0.5 U	0.5 U
1,2 -Dichloroethane	1.0 U	2.3	1.0 U	1.0 U
cis-1,2-Dichloroethene	2.7	97	8.3	1.0 U
Ethylbenzene	2.3	2.3	1.0 U	3.1
Trichloroethene	1.0 U	1.8	1.0 U	1.0 U
1,3,5 - Trimethylbenzene	1.3	1.3	NA	NA
Vinyl Chloride	4.6	36	1.0 U	1.0 U
Xylene (total)	1.1	1.1	1.0 U	1.4
PPMs (ug/L)				
Arsenic	10 U	39	10 U	72
Chromium	30 U	230	58	30 U
Copper	27	340	75	32
Lead	17	170	35	19
Nickel	40 U	340	63	40 U
Zinc	65	940	230	61

Project Number: 1315-296-4A
 Project Name: Capitol Airport
 ANG
 Springfield, IL
 Work Order Number: W6-12-0352
 Date Reported: 01-15-97

ANALYTICAL RESULTS

Metals in TCLP Leachate^a

GTEL Sample Number		06	07		
Client Identification		IDW1-2 SOIL	IDW3-4 SOIL		
Date Sampled		12-19-96	12-19-96		
Date Leached		01-06 to 01-07-97	01-06 to 01-07-97		
Date Analyzed (Method 7470)		01-08-97	01-08-97		
Date Analyzed (Method 6010A)		01-07-97	01-07-97		
Date Analyzed (Method 7421)		01-10-97	01-10-97		
Date Analyzed (Method 7060)		01-08-97	01-08-97		
Date Analyzed (Method 7740)		01-07-97	01-07-97		
Dilution Multiplier (Method 6010A) ^b		1	1		
Analyte	Method ^c	Reporting Limit, mg/L	Concentration, mg/L		
Arsenic	EPA 7060	0.050	<0.050	<0.050	
Barium	EPA 6010A	2.0	<2.0	<2.0	
Cadmium	EPA 6010A	0.005	<0.0050	<0.0050	
Chromium	EPA 6010A	0.10	<0.10	<0.10	
Lead	EPA 7421	0.0075 ^d	<0.0075	<0.0075	
Mercury	EPA 7470	0.002	<0.002	<0.002	
Selenium	EPA 7740	0.050	<0.050	<0.050	
Silver	EPA 6010A	0.050	<0.050	<0.050	

- a TCLP performed as per 40 CFR, Part 261, Appendix II - Method 1311. These data are presented in accordance with the Federal Register, 57, p.55114, November 24, 1992.
- b The dilution multiplier indicates the adjustments made for dilutions.
- c Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA, November 1986; Digestion by Method 3010 for Method 6010 analytes, Method 7470 for mercury, and Method 3020 for 7000 Series Methods.
- d The recovery limits were exceeded in the laboratory control sample and matrix spike sample due to matrix interferences during digestion.

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W6120352

Project ID (number): 1315-296-4A

Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 1311/8240

Matrix: Solids

NEI/GTEL Sample Number	W6120352-06	W6120352-07	--	--
Client ID	IDW1-2 SOIL	IDW3-4 SOIL	--	--
Date Sampled	12/19/96	12/19/96	--	--
Date Prepared	01/02/97	01/02/97	--	--
Date Analyzed	01/10/97	01/10/97	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting					
	Limit	Units				
Benzene	0.05	mg/L	< 0.05	< 0.05	--	--
Carbon tetrachloride	0.05	mg/L	< 0.05	< 0.05	--	--
Chlorobenzene	0.05	mg/L	< 0.05	< 0.05	--	--
Chloroform	0.05	mg/L	< 0.05	< 0.05	--	--
1,4-Dichlorobenzene	0.05	mg/L	< 0.05	< 0.05	--	--
1,2-Dichloroethane	0.05	mg/L	< 0.05	< 0.05	--	--
1,1-Dichloroethene	0.05	mg/L	< 0.05	< 0.05	--	--
2-Butanone	0.2	mg/L	< 0.2	< 0.2	--	--
Tetrachloroethene	0.05	mg/L	< 0.05	< 0.05	--	--
Trichloroethene	0.05	mg/L	< 0.05	< 0.05	--	--
Vinyl chloride	0.1	mg/L	< 0.1	< 0.1	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 1311/8240:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 2. TCLP is performed as per 40 CFR, Part 261, Appendix II - EPA Method 1311.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120352
Project ID (number): 1315-296-4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
Matrix: Aqueous

GTEL Sample Number	W6120352-01	W6120352-02	W6120352-03	W6120352-04
Client ID	2-RB02 RINSATE BLANK	MW102 GW04	MW103 GW04	MW104 GW04
Date Sampled	12/19/96	12/19/96	12/19/96	12/19/96
Date Analyzed	12/22/96	12/22/96	12/22/96	12/22/96
Dilution Factor	1.00	1.00	1.00	1.00

Reporting

Analyte	Limit	Units	Concentration:			
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	1.0	ug/L	1.1	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	3.1
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	< 1.0	1.4
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:
NEI/GTEL Wichita, KS
W6120352

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120352
Project ID (number): 1315-296-4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
Matrix: Aqueous

GTEL Sample Number	W6120352-05	W6120352-08	..	..
Client ID	MW101 GW04	TB-08	..	..
Date Sampled	12/19/96		..	..
Date Analyzed	12/22/96	12/22/96	..	..
Dilution Factor	1.00	1.00	..	..

Analyte	Reporting Limit	Units	Concentration:		
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	..
Chloromethane	2.0	ug/L	< 2.0	< 2.0	..
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	..
Bromomethane	2.0	ug/L	< 2.0	< 2.0	..
Chloroethane	1.0	ug/L	< 1.0	< 1.0	..
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	..
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	..
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	..
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	..
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	..
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	..
Chloroform	1.0	ug/L	< 1.0	< 1.0	..
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	..
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	..
Benzene	0.5	ug/L	< 0.5	< 0.5	..
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	..
Trichloroethene	1.0	ug/L	< 1.0	< 1.0	..
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	..
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	..
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	..
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	..
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	..
Toluene	1.0	ug/L	< 1.0	< 1.0	..
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	..
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	..
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	..
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	..
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	..
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	..
Bromoform	2.0	ug/L	< 2.0	< 2.0	..
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	..
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	..
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	..
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	..

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:
NEI/GTEL Wichita, KS.
W6120352

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: NYT01NYT01
Login Number: W6120352
Project ID (number): 1315-296-4A
Project ID (name): CAPITOL AIRPORT/IL

Method: See Below
Matrix: Aqueous

GTEL Sample Number		W6120352-01	W6120352-02	W6120352-03	W6120352-04
Client ID 2-RB02 RINSATE BLANK		MW102 GW04	MW103 GW04	MW104 GW04	
Date Sampled		12/19/96	12/19/96	12/19/96	12/19/96
EPA 6010A	Date Prepared	12/27/96	12/27/96	12/27/96	12/27/96
EPA 6010A	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 6010A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7041	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7041	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7041	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7060A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7060A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7060A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7421	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7421	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7421	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7470A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7470A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7470A	Dilution Factor	2.00	2.00	2.00	2.00
EPA 7740	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7740	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7740	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7841	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7841	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7841	Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:			
Inorganics (MT, WC)						
Antimony	EPA 7041	10.	ug/L	< 10.	< 10.	< 10.
Arsenic	EPA 7060A	10.	ug/L	< 10.	< 10.	72.
Beryllium	EPA 6010A	5.0	ug/L	< 5.0	< 5.0	< 5.0
Cadmium	EPA 6010A	20.	ug/L	< 20.	< 20.	< 20.
Chromium	EPA 6010A	30.	ug/L	< 30.	< 30.	< 30.
Copper	EPA 6010A	25.	ug/L	< 25.	< 25.	< 25.
Lead	EPA 7421	4.0	ug/L	< 4.0	16.	10.
Mercury	EPA 7470A	0.50	ug/L	< 1.0	< 1.0	< 1.0
Nickel	EPA 6010A	40.	ug/L	< 40.	< 40.	< 40.
Selenium	EPA 7740	10.	ug/L	< 10.	< 10.	< 10.
Silver	EPA 6010A	20.	ug/L	< 20.	< 20.	< 20.
Thallium	EPA 7841	10.	ug/L	< 10.	< 10.	< 10.
Zinc	EPA 6010A	20.	ug/L	< 20.	35.	61.
						23.

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W6120352

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: NYT01NYT01
Login Number: W6120352
Project ID (number): 1315-296-4A
Project ID (name): CAPITOL AIRPORT/IL

Method: See Below
Matrix: Aqueous

	GTEL Sample Number	W6120352-05	--	--	--
	Client ID	MW101 GW04	--	--	--
	Date Sampled	12/19/96	--	--	--
EPA 6010A	Date Prepared	12/27/96	--	--	--
EPA 6010A	Date Analyzed	12/27/96	--	--	--
EPA 6010A	Dilution Factor	1.00	--	--	--
EPA 7041	Date Prepared	12/23/96	--	--	--
EPA 7041	Date Analyzed	12/27/96	--	--	--
EPA 7041	Dilution Factor	1.00	--	--	--
EPA 7060A	Date Prepared	12/24/96	--	--	--
EPA 7060A	Date Analyzed	12/26/96	--	--	--
EPA 7060A	Dilution Factor	1.00	--	--	--
EPA 7421	Date Prepared	12/23/96	--	--	--
EPA 7421	Date Analyzed	12/26/96	--	--	--
EPA 7421	Dilution Factor	1.00	--	--	--
EPA 7470A	Date Prepared	12/24/96	--	--	--
EPA 7470A	Date Analyzed	12/26/96	--	--	--
EPA 7470A	Dilution Factor	2.00	--	--	--
EPA 7740	Date Prepared	12/24/96	--	--	--
EPA 7740	Date Analyzed	12/26/96	--	--	--
EPA 7740	Dilution Factor	1.00	--	--	--
EPA 7841	Date Prepared	12/23/96	--	--	--
EPA 7841	Date Analyzed	12/27/96	--	--	--
EPA 7841	Dilution Factor	1.00	--	--	--

Analyte	Reporting	Concentration:			
		Limit	Units		
Antimony	EPA 7041	10.	ug/L	< 10.	--
Arsenic	EPA 7060A	10.	ug/L	< 27.	--
Beryllium	EPA 6010A	5.0	ug/L	< 5.0	--
Cadmium	EPA 6010A	20.	ug/L	< 20.	--
Chromium	EPA 6010A	30.	ug/L	< 30.	--
Copper	EPA 6010A	25.	ug/L	< 32.	--
Lead	EPA 7421	4.0	ug/L	< 19.	--
Mercury	EPA 7470A	0.50	ug/L	< 1.0	--
Nickel	EPA 6010A	40.	ug/L	< 40.	--
Selenium	EPA 7740	10.	ug/L	< 10.	--
Silver	EPA 6010A	20.	ug/L	< 20.	--
Thallium	EPA 7841	10.	ug/L	< 10.	--
Zinc	EPA 6010A	20.	ug/L	< 49.	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS
W6120352

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120326
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
Matrix: Aqueous

GTEL Sample Number	W6120326-01	W6120326-02	W6120326-03	W6120326-04
Client ID	DCOND6	DCOND7	DCOND8	TB-15
Date Sampled	12/18/96	12/18/96	12/18/96	
Date Analyzed	12/23/96	12/22/96	12/22/96	12/23/96
Dilution Factor	10.0	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units				
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	0.5	ug/L	< 5.0	1.3	< 0.5	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	1.0	ug/L	< 1.0	3.4	1.5	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:
NEI/GTEL Wichita, KS
W6120326

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120326
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
Matrix: Aqueous

GTEL Sample Number	W6120326-05	W6120326-06	W6120326-07	W6120326-08
Client ID	MW201B	MW202A	MW202B	2-FB03
Date Sampled	12/18/96	12/18/96	12/18/96	12/18/96
Date Analyzed	12/22/96	12/22/96	12/22/96	12/22/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:			
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0	60.	36.	< 1.0
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	1.2	< 1.0	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	8.3	120	97.	< 1.0
Chloroform	1.0	ug/L	< 1.0	< 1.0	< 1.0	1.2
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	0.5	ug/L	< 0.5	1.3	1.1	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 1.0	2.7	2.3	< 1.0
Trichloroethene	1.0	ug/L	< 1.0	2.6	1.8	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	1.5	< 1.0	< 1.0
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:
NEI/GTEL Wichita, KS
W6120326

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: NYT01NYT01

Login Number: W6120326

Project ID (number): 1315-269/4A

Project ID (name): OPERATIONAL TECHNOLOGIES/4100 NW LOOP 410/SAN ANTONIO/TX

Method: See Below

Matrix: Aqueous

	GTEL Sample Number	W6120326-01	W6120326-02	W6120326-03	W6120326-05
	Client ID	DCOND6	DCOND7	DCOND8	MW201B
	Date Sampled	12/18/96	12/18/96	12/18/96	12/18/96
EPA 6010A	Date Prepared	12/20/96	12/20/96	12/20/96	12/20/96
EPA 6010A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 6010A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7041	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7041	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7041	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7060A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7060A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7060A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7421	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7421	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7421	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7470A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7470A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7470A	Dilution Factor	2.00	2.00	2.00	2.00
EPA 7740	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7740	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7740	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7841	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7841	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7841	Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting	Limit	Units	Concentration:
Inorganics (MT, WC)				
Antimony	EPA 7041	10.	ug/L	< 10.
Arsenic	EPA 7060A	10.	ug/L	< 10.
Beryllium	EPA 6010A	5.0	ug/L	< 5.0
Cadmium	EPA 6010A	20.	ug/L	< 20.
Chromium	EPA 6010A	30.	ug/L	< 30.
Copper	EPA 6010A	25.	ug/L	< 25.
Lead	EPA 7421	4.0	ug/L	< 4.0
Mercury	EPA 7470A	0.50	ug/L	< 1.0
Nickel	EPA 6010A	40.	ug/L	< 40.
Selenium	EPA 7740	10.	ug/L	< 10.
Silver	EPA 6010A	20.	ug/L	< 20.
Thallium	EPA 7841	10.	ug/L	< 10.
Zinc	EPA 6010A	20.	ug/L	< 20.

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W6120326

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: NYT01NYT01

Login Number: W6120326

Project ID (number): 1315-269/4A

Project ID (name): OPERATIONAL TECHNOLOGIES/4100 NW LOOP 410/SAN ANTONIO/TX

Method: See Below

Matrix: Aqueous

	GTEL Sample Number	W6120326-06	W6120326-07	W6120326-08	--
	Client ID	MW202A	MW202B	2-FB03	--
	Date Sampled	12/18/96	12/18/96	12/18/96	--
EPA 6010A	Date Prepared	12/20/96	12/20/96	12/20/96	--
EPA 6010A	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 6010A	Dilution Factor	1.00	2.00	1.00	--
EPA 7041	Date Prepared	12/23/96	12/23/96	12/23/96	--
EPA 7041	Date Analyzed	12/27/96	12/27/96	12/27/96	--
EPA 7041	Dilution Factor	1.00	1.00	1.00	--
EPA 7060A	Date Prepared	12/24/96	12/24/96	12/24/96	--
EPA 7060A	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 7060A	Dilution Factor	1.00	1.00	1.00	--
EPA 7421	Date Prepared	12/23/96	12/23/96	12/23/96	--
EPA 7421	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 7421	Dilution Factor	1.00	5.00	1.00	--
EPA 7470A	Date Prepared	12/24/96	12/24/96	12/24/96	--
EPA 7470A	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 7470A	Dilution Factor	2.00	2.00	2.00	--
EPA 7740	Date Prepared	12/24/96	12/24/96	12/24/96	--
EPA 7740	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 7740	Dilution Factor	1.00	1.00	1.00	--
EPA 7841	Date Prepared	12/23/96	12/23/96	12/23/96	--
EPA 7841	Date Analyzed	12/27/96	12/27/96	12/27/96	--
EPA 7841	Dilution Factor	1.00	1.00	1.00	--

Analyte		Reporting		Concentration:		
		Limit	Units			
Antimony	EPA 7041	10.	ug/L	< 10.	< 10.	--
Arsenic	EPA 7060A	10.	ug/L	39.	< 10.	--
Beryllium	EPA 6010A	5.0	ug/L	< 10.	< 5.0	--
Cadmium	EPA 6010A	20.	ug/L	< 40.	< 20.	--
Chromium	EPA 6010A	30.	ug/L	230	< 30.	--
Copper	EPA 6010A	25.	ug/L	340	< 25.	--
Lead	EPA 7421	4.0	ug/L	170	< 4.0	--
Mercury	EPA 7470A	0.50	ug/L	< 1.0	< 1.0	--
Nickel	EPA 6010A	40.	ug/L	340	< 40.	--
Selenium	EPA 7740	10.	ug/L	< 10.	< 10.	--
Silver	EPA 6010A	20.	ug/L	< 40.	< 20.	--
Thallium	EPA 7841	10.	ug/L	< 10.	< 10.	--
Zinc	EPA 6010A	20.	ug/L	940	< 20.	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS
W6120326

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: OTC010TC01

Login Number: W6120301

Project ID (number): 1315-269-4A

Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL.

Method: See Below

Matrix: Aqueous

	GTEL Sample Number	W6120301-01	W6120301-02	W6120301-03	W6120301-04
	Client ID	MW 203 MW04	MW 201 GW04	MW 202 GW04	2FB02 FIELD BLANK
	Date Sampled	12/17/96	12/17/96	12/17/96	12/17/96
EPA 6010A	Date Prepared	12/19/96	12/19/96	12/19/96	12/19/96
EPA 6010A	Date Analyzed	12/19/96	12/19/96	12/19/96	12/19/96
EPA 6010A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7041	Date Prepared	12/19/96	12/19/96	12/19/96	12/19/96
EPA 7041	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7041	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7060A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7060A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7060A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7421	Date Prepared	12/19/96	12/19/96	12/19/96	12/19/96
EPA 7421	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7421	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7470A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7470A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7470A	Dilution Factor	2.00	2.00	2.00	2.00
EPA 7740	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7740	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7740	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7841	Date Prepared	12/19/96	12/19/96	12/19/96	12/19/96
EPA 7841	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7841	Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
Inorganics (MT, WC)			
Antimony	EPA 7041	10. ug/L	< 10. < 10. < 10. < 10.
Arsenic	EPA 7060A	10. ug/L	< 10. < 10. < 10. < 10.
Beryllium	EPA 6010A	5.0 ug/L	< 5.0 < 5.0 < 5.0 < 5.0
Cadmium	EPA 6010A	20. ug/L	< 20. < 20. < 20. < 20.
Chromium	EPA 6010A	30. ug/L	< 30. < 30. < 30. < 30.
Copper	EPA 6010A	25. ug/L	< 25. < 25. < 25. < 25.
Lead	EPA 7421	4.0 ug/L	9.6 17. 10. < 4.0
Mercury	EPA 7470A	0.50 ug/L	< 1.0 < 1.0 < 1.0 < 1.0
Nickel	EPA 6010A	40. ug/L	< 40. < 40. < 40. < 40.
Selenium	EPA 7740	10. ug/L	< 10. < 10. < 10. < 10.
Silver	EPA 6010A	20. ug/L	< 20. < 20. < 20. < 20.
Thallium	EPA 7841	10. ug/L	< 10. < 10. < 10. < 10.
Zinc	EPA 6010A	20. ug/L	59. 65. 45. < 20.

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W6120301

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTCG10TC01
Login Number: W6120301
Project ID (number): 1315-269-4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
Matrix: Aqueous

GTEL Sample Number	W6120301-01	W6120301-02	W6120301-03	W6120301-04
Client ID	MW 203 MW04	MW 201 GW04	MW 202 GW04	2FB02 FIELD BLANK
Date Sampled	12/17/96	12/17/96	12/17/96	12/17/96
Date Analyzed	12/22/96	12/22/96	12/22/96	12/21/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units				
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	4.6	< 1.0
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	2.7	< 1.0
Chloroform	1.0	ug/L	< 1.0	< 1.0	< 1.0	49.
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	0.5	ug/L	< 0.5	< 0.5	0.8	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	16.
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	3.9
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	2.3	< 1.0
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	1.1	< 1.0
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:
NEI/GTEL Wichita, KS
W6120301

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120301
Project ID (number): 1315-269-4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 524.2
Matrix: Aqueous

GTEL Sample Number	W6120301-03	W6120301-04	--	--
Client ID	MW 202 GW04	2FB02 FIELD BLANK	--	--
Date Sampled	12/17/96	12/17/96	--	--
Date Analyzed	12/26/96	12/26/96	--	--
Dilution Factor	1.00	1.00	--	--

Reporting

Analyte	Limit	Units	Concentration:		
Dichlorodifluoromethane	0.5	ug/L	< 0.5	< 0.5	--
Chloromethane	0.5	ug/L	< 0.5	< 0.5	--
Bromomethane	1.0	ug/L	< 1.0	< 1.0	--
Vinyl chloride	0.5	ug/L	3.5	< 0.5	--
Chloroethane	0.5	ug/L	< 0.5	< 0.5	--
Trichlorofluoromethane	0.5	ug/L	< 0.5	< 0.5	--
1,1-Dichloroethene	0.5	ug/L	< 0.5	< 0.5	--
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	--
MTBE	0.5	ug/L	< 0.5	< 0.5	--
trans-1,2-Dichloroethene	0.5	ug/L	< 0.5	< 0.5	--
1,1-Dichloroethane	0.5	ug/L	< 0.5	< 0.5	--
2,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	--
cis-1,2-Dichloroethene	0.5	ug/L	2.1	< 0.5	--
Chloroform	0.5	ug/L	< 0.5	44.	--
Bromochloromethane	0.5	ug/L	< 0.5	< 0.5	--
1,1,1-Trichloroethane	0.5	ug/L	< 0.5	< 0.5	--
1,1-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	--
Carbon tetrachloride	0.5	ug/L	< 0.5	< 0.5	--
Benzene	0.5	ug/L	< 0.5	< 0.5	--
1,2-Dichloroethane	0.5	ug/L	< 0.5	< 0.5	--
Trichloroethene	0.5	ug/L	< 0.5	< 0.5	--
1,2-Dichloropropane	0.5	ug/L	< 0.5	< 0.5	--
Bromodichloromethane	0.5	ug/L	< 0.5	12.	--
Dibromomethane	0.5	ug/L	< 0.5	< 0.5	--
2-Chloroethylvinyl ether	0.5	ug/L	< 0.5	< 0.5	--
cis-1,3-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	--
Toluene	0.5	ug/L	< 0.5	< 0.5	--
trans-1,3-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	--
1,1,2-Trichloroethane	0.5	ug/L	< 0.5	< 0.5	--
1,2-Dibromoethane	0.5	ug/L	< 0.5	< 0.5	--
Tetrachloroethene	0.5	ug/L	< 0.5	< 0.5	--
1,3-Dichloropropane	0.5	ug/L	< 0.5	< 0.5	--
Dibromochloromethane	0.5	ug/L	< 0.5	3.6	--
Chlorobenzene	0.5	ug/L	< 0.5	< 0.5	--
Ethylbenzene	0.5	ug/L	< 0.5	< 0.5	--
1,1,1,2-Tetrachloroethane	0.5	ug/L	< 0.5	< 0.5	--
m+p-Xylene	0.5	ug/L	< 0.5	< 0.5	--
o-Xylene	0.5	ug/L	< 0.5	< 0.5	--
Styrene	0.5	ug/L	< 0.5	< 0.5	--

NEI/GTEL Wichita, KS

W6120301

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120301
Project ID (number): 1315-269-4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 524.2
Matrix: Aqueous

GTEL Sample Number	W6120301-03	W6120301-04	--	--
Client ID	MW 202 GW04	2FB02 FIELD BLANK	--	--
Date Sampled	12/17/96	12/17/96	--	--
Date Analyzed	12/26/96	12/26/96	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:		
Bromoform	0.5	ug/L	< 0.5	--	--
Isopropylbenzene	0.5	ug/L	< 0.5	--	--
1,1,2,2-Tetrachloroethane	0.5	ug/L	< 0.5	--	--
1,2,3-Trichloropropane	1.0	ug/L	< 1.0	--	--
n-Propylbenzene	0.5	ug/L	< 0.5	--	--
Bromobenzene	0.5	ug/L	< 0.5	--	--
1,3,5-Trimethylbenzene	0.5	ug/L	1.3	--	--
2-Chlorotoluene	0.5	ug/L	< 0.5	--	--
4-Chlorotoluene	0.5	ug/L	< 0.5	--	--
tert-Butylbenzene	0.5	ug/L	< 0.5	--	--
1,2,4-Trimethylbenzene	0.5	ug/L	< 0.5	--	--
sec-Butylbenzene	0.5	ug/L	< 0.5	--	--
p-Isopropyltoluene	0.5	ug/L	< 0.5	--	--
1,3-Dichlorobenzene	0.5	ug/L	< 0.5	--	--
1,4-Dichlorobenzene	0.5	ug/L	< 0.5	--	--
n-Butylbenzene	0.5	ug/L	< 0.5	--	--
1,2-Dichlorobenzene	0.5	ug/L	< 0.5	--	--
1,2-Dibromo-3-chloropropane	2.0	ug/L	< 2.0	--	--
1,2,4-Trichlorobenzene	0.5	ug/L	< 0.5	--	--
Hexachlorobutadiene	1.0	ug/L	< 1.0	--	--
Naphthalene	0.5	ug/L	< 0.5	--	--
1,2,3-Trichlorobenzene	0.5	ug/L	< 0.5	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 524.2:

Methods for the Determination of Organic Compounds in Drinking Water, Rev. 2.0, USEPA 1989

APPENDIX I
QUALITY ASSURANCE/QUALITY CONTROL DATA EVALUATION

Data Evaluation Case Narrative Summary

NEI/GTEL Client ID: OTC01OTC01
Login Number: W7040021
Project ID Number: 1315-269
Project ID Name: Illinois ANG at Capital Airport / Springfield, Illinois

Samples were sampled on 4/1/97 and received at the laboratory for analyses on 4/2/97.

Nine water samples were analyzed for Halogenated/Aromatic Volatile analyses by Solid Waste Methods-846 8010/8020. Nine water samples were analyzed for the Metals-Lead analysis by Solid Waste Methods, 6010.

Halogenated/Aromatic Volatile Analyses / SW-846 8010/8020

Sample Information

All samples did not display results that were above the assigned detection limits except for sample MS/MSD-SD with a hit on Acetone at 27 ug/kg with a detection limit of 10 ug/kg. No second column confirmation was performed on this QA/QC sample.

Method Blanks

All method blanks were found to be clean with no target compounds detected except for Methylene Chloride in the blank associated with Samples SD-01, SD-02, SD-03, and MS/MSD-SD. None of these samples was affected due to none detected in the sample results reflecting the contamination.

Initial and Continuing Calibration

The initial and continuing calibrations met quality control criteria, %RPD and/or minimum RRF values for these volatile analyses.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit surrogate ranges for Dibromofluoromethane recoveries, except for Sample MS/MSD-SD.

Holding Times and Preservatives

Holding times from sample collection to sample extraction/analysis for volatiles were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Matrix Spike/Matrix Spike Duplicate Samples

One MS/MSD per 20 samples was required and completed. All performance results were within QC Criteria Standards except for compound 2-Chloroethyl vinyl ether. Samples were not affected due to the identified compound not found above detection limits; therefore, reported data remains valid.

Serial Dilutions

No serial dilutions were required when samples were analyzed in accordance with method protocol.

Metals - Lead Analyses / SW-846 6010

Sample Information

No analytes were detected for Lead above the assigned detection limits for Samples SD-02 and SD-3. Lead was detected on all other samples above the assigned detection limits ranging from 7.3 mg/kg to 14 mg/kg. Analyses were performed for other elements for all samples but did not apply to the Statement of Work. Lead was the only analyte to be recognized in the evaluation.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial and continuing calibrations met quality control criteria for this Metals analyses.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges.

Holding Times and Preservatives

Holding times from sample collection to sample digestion/analysis for Metals were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Matrix Spike/Matrix Spike Duplicate Samples

One MS/MSD per 20 samples was required and completed. All performance results were within QC Criteria Standards and RPD were within QC limits.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

No serial dilutions were required when samples were analyzed in accordance with method protocol.

Data Evaluation Case Narrative Summary

NEI/GTEL Client ID: OTC01OTC01
Login Number: W7040081
Project ID Number: 1315-269
Project ID Name: Illinois ANG at Capital Airport / Springfield, Illinois

Samples were sampled on 4/3/97 and received at the laboratory for analyses on 4/4/97.

Six water samples were analyzed for Halogenated/Aromatic Volatile analyses by Solid Waste Methods-846 8010/8020. Six water samples were analyzed for the 8 RCRA Metals analysis by Solid Waste Methods, 6000/7000 Series.

Halogenated/Aromatic Volatile Analyses / SW-846 8010/8020

Sample Information

All samples displayed results that were above the assigned detection limits except for samples MW-201 and MW-203. From all the samples with detections above assigned detection limits, the following were selected for a confirmation analysis for the same compounds. These samples were identified as not having a positive second column confirmation for the analyses: **Sample MW-201B** did not have a positive confirmation for Trichloroethane; **Sample MW-202B** did not have direct positive confirmation for trans-1,2-Dichloroethene, Trichloroethene, and Benzene; **Sample MW-202-Filtered** did not have positive identification for Benzene and 1,2-Dichloroethane; **Sample MW-202A** did not have a positive identification for Chloroethane. All results above not confirmed may be due to fluctuations in dilution factors of reporting limits at a non-consistency.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial and continuing calibrations met quality control criteria, %RPD and/or minimum RRF values for these volatile analyses.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit surrogate ranges for Dibromofluoromethane recoveries.

Holding Times and Preservatives

Holding times from sample collection to sample extraction/analysis for volatiles were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards except for 1,2-Dibromo-3-chloropropane. Samples were not affected due to the identified compound not found above the assigned detection limit among the samples.

Matrix Spike/Matrix Spike Duplicate Samples

One MS/MSD per 20 samples was required and completed. All performance results were within QC Criteria Standards except for compound 2-Chloroethyl vinyl ether. Samples were not affected due to the identified compound not found above detection limits; therefore, reported data remains valid.

Serial Dilutions

No serial dilutions were required when samples were analyzed in accordance with method protocol except for the second column confirmation on samples MW-201B and MW-202B with 5x dilutions. These dilutions were performed, and no explanation was provided in the case narrative.

8 RCRA Metals Analyses / SW-846 6000/7000 Series

Sample Information

Copper, Lead, Manganese, and Zinc were detected on Sample MW-201B above the assigned detection limit. Sample MW-202B displayed sample results with Arsenic, Chromium, Copper, Lead, Manganese, Nickel, and Zinc above assigned detection limits. Sample MW-202(Filtered) displayed Manganese above the assigned detection limit. Sample MW-202(Unfiltered) displayed Lead and Manganese with results above assigned detection limits. Samples MW-201 and MW-203 displayed Lead, Manganese, and Zinc above assigned detection limits. And, Sample MW-202A displayed results above assigned detection limits for the compounds Copper, Lead, Manganese, and Zinc.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial and continuing calibrations met quality control criteria for this Metals analyses.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges.

Holding Times and Preservatives

Holding times from sample collection to sample digestion/analysis for Metals were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Matrix Spike/Matrix Spike Duplicate Samples

One MS/MSD per 20 samples was required and completed. All performance results were within QC Criteria Standards except for Antimony, Lead, and Mercury with low recoveries. RPD were within QC Ranges except for the antimony analyte with a %RPD above 20%. Parameter or analyte rejection cannot reject values based on MS/MSD validation alone.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

No serial dilutions were required when samples were analyzed in accordance with method protocol.

Data Evaluation Case Narrative Summary

NEI/GTEL Client ID: OTC01OTC01
Login Number: W7040048
Project ID Number: 1315-269
Project ID Name: Illinois ANG at Capital Airport / Springfield, Illinois

Samples were sampled on 4/2/97 and received at the laboratory for analyses on 4/3/97.

Eight water samples were analyzed for Halogenated/Aromatic Volatile analyses by Solid Waste Methods-846 8010/8020. Six water samples were analyzed for the 8 RCRA Metals analysis by Solid Waste Methods, 6000/7000 Series.

Halogenated/Aromatic Volatile Analyses / SW-846 8010/8020

Sample Information

All samples displayed results that were above the assigned detection limits except for samples MW-103, MW-102, MW-101 and TBNK12. From all those samples with detections above assigned detection limits, one sample was selected for a positive second confirmation analysis for the same compounds. This sample was identified as not having a positive second column confirmation: **Sample MW-104** did not have a positive confirmation for Total Xylenes. The results above that are not confirmed may be due to fluctuations in reporting limits at a non-consistency.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial and continuing calibrations met quality control criteria, %RPD and/or minimum RRF values for these volatile analyses.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit surrogate ranges for Dibromofluoromethane recoveries.

Holding Times and Preservatives

Holding times from sample collection to sample extraction/analysis for volatiles were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards except for 1,2-Dibromo-3-chloropropane. Samples were not affected due to the identified compound not found above the assigned detection limit among the samples.

Matrix Spike/Matrix Spike Duplicate Samples

One MS/MSD per 20 samples was required and completed. All performance results were within QC Criteria Standards except for compound 2-Chloroethyl vinyl ether. Samples were not affected due to the identified compound not found above detection limits; therefore, reported data remains valid.

Serial Dilutions

No serial dilutions were required when samples were analyzed in accordance with method protocol except for the second column confirmation on samples MW-201B and MW-202B with 5x dilutions. These dilutions were performed, and no explanation was provided in the case narrative.

8 RCRA Metals Analyses / SW-846 6000/7000 Series

Sample Information

No analytes were detected above the assigned detection limits for samples Field Blank and Bailer Rinsate. Arsenic, Lead, and Zinc were detected in Sample MW-104 above the assigned detection limit. Sample MW-103 displayed sample results with Copper, Lead, and Zinc above assigned detection limits. Sample MW-102 displayed Lead and Zinc above assigned detection limits. And, Sample MW-101 displayed Arsenic, Lead, and Zinc with results above assigned detection limits.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial and continuing calibrations met quality control criteria for this Metals analyses.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges.

Holding Times and Preservatives

Holding times from sample collection to sample digestion/analysis for Metals were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Matrix Spike/Matrix Spike Duplicate Samples

One MS/MSD per 20 samples was required and completed. All performance results were within QC Criteria Standards except for Antimony, Lead, and Mercury with low recoveries. RPD were within QC Ranges except for an antimony analyte with a %RPD above 20%. Parameter or analyte rejection cannot reject values based on MS/MSD validation alone.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

No serial dilutions were required when samples were analyzed in accordance with method protocol.

Data Evaluation Case Narrative Summary

NEI/GTEL Client ID: OTC01OTC01
Login Number: W6120301
Project ID Number: 1315-269-4A
Project ID Name: Illinois ANG at Capital Airport / Springfield, Illinois

Samples were sampled on 12/17/96 and received at the laboratory for analyses on 12/18/96.

Five water samples were analyzed for Halogenated/Aromatic Volatile analyses by Solid Waste Methods-846 8010/8020. Second Column Confirmation was performed on all samples with VOCs detected above the assigned detection limits. Four water samples were analyzed for Metals analysis by Solid Waste Methods, 6000/7000 Series.

Halogenated/Aromatic Volatile Analyses / SW-846 8010/8020

Sample Information

Sample MW202-GW04 displayed results that were above assigned detection limits on Vinyl Chloride, cis-1,2-Dichloroethene, Benzene, Ethylbenzene, and Total Xylenes. Second Column Confirmation displayed results verifying the presence of Vinyl Chloride and cis-1,2-Dichloroethene. Benzene, Ethylbenzene, and Total Xylenes were not confirmed and were therefore initially classified as estimated hits. Also, surrogate recoveries for the Second Column Analysis were out of QC Limits and are flagged with "J" flags and are classified as estimated hits.

Sample 2FB-02 displayed results above the assigned detection limits on Chloroform, Bromodichloromethane, and Dibromochloromethane. Second Column Confirmation displayed results verifying the presence of all the compounds initially detected.

Sample 2FB-02 (Field Blank) displayed contamination on Chloroform, Bromodichloromethane, and Dibromochloromethane compounds. These identified compounds do not reflect the data usability and validity due to these compounds not being detected above assigned detection limits for the investigative samples.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial calibration met quality control criteria for this volatile analysis. The continuing calibrations conducted show %RPD and/or minimum RRF values for various compounds out of quality control limits. Samples were not affected due to identified compounds not found above detection limits; therefore, reported data is valid.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges, except for the Second Column Confirmation surrogate recoveries for sample MW202-GW04. Dibromofluoromethane-d8 surrogate was displayed outside QC Limits and the sample was not reanalyzed. Therefore, all results detected above the assigned detection limits are classified as estimated values and results are flagged with "J" flags.

Holding Times and Preservatives

Holding times from sample collection to sample extraction/analysis for volatiles were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

No serial dilutions were required when samples were analyzed in accordance with method protocol.

Metals Analyses / SW-846 6000/7000 Series

Sample Information

Lead and Zinc were detected in sample MW203-MW04 above the assigned detection limits. Sample MW201-GW04 displayed sample results with Copper, Lead and Zinc above assigned detection limits. And, Sample MW202-GW04 displayed Lead and Zinc above assigned detection limits.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial and continuing calibrations met quality control criteria for this Metals analysis.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges.

Holding Times and Preservatives

Holding times from sample collection to sample digestion/analysis for Metals were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

A serial dilution was required when samples were analyzed for Method 7470 for Mercury at a 2x factor.

Data Evaluation Case Narrative Summary

NEI/GTEL Client ID: OTC01OTC01
Login Number: W6120326
Project ID Number: 1315-269-4A
Project ID Name: Illinois ANG at Capital Airport / Springfield, Illinois

Samples were sampled on 12/18/96 and received at the laboratory for analyses on 12/19/96.

Nine water samples were analyzed for Halogenated/Aromatic Volatile analyses by Solid Waste Methods-846 8010/8020. Second Column Confirmation was performed on all samples with VOCs detected above assigned detection limits. Seven samples were analyzed for Metals analysis by Solid Waste Methods, 6000/7000 Series.

Halogenated/Aromatic Volatile Analyses / SW-846 8010/8020

Sample Information

Sample DCON07-Decon H2O D-7 displayed results that are above assigned detection limits for Benzene and Toluene compounds. Second Column Confirmation displayed results verifying only the presence of Toluene. The value of Benzene has been flagged with a "J" flag and is an estimated quantity due to no confirmation on the Second Column Confirmation Analysis.

Sample DCON08-Decon H2O D-8 displayed a result above the assigned detection limit on Toluene. Second Column Confirmation displayed the result verifying the presence of Toluene initially detected.

Sample MW201B-GW01 displayed a result that was above the assigned detection limit on cis-1,2-Dichloroethene. Second Column Confirmation confirmed the detected compound and verified the presence of the compound initially detected.

Sample MW202A-GW01 displayed results that are above assigned detection limits for Vinyl Chloride, trans-1,2-Dichloroethene, cis-1,2-Dichloroethene, Benzene, 1,2-Dichloroethane, Trichloroethene and Ethylbenzene compounds. Second Column Confirmation displayed results verifying only the presence of Vinyl Chloride and cis-1,2-Dichloroethene. The values of trans-1,2-Dichloroethene, Benzene, 1,2-Dichloroethane, and Trichloroethane have been flagged with a "J" flag and are estimated quantities due to no confirmation on the Second Column Confirmation Analysis. Ethylbenzene was not analyzed for a Second Column Confirmation; therefore, the value is marked with a "J" flag and is classified as an estimated value.

Sample 2-FB03 exhibited Chloroform contamination above the assigned detection limit but did not affect the sample result validity due to no detected concentrations of the compound above the assigned detection limits.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial calibration met quality control criteria for this volatile analysis. The continuing calibrations conducted show %RPD and/or minimum RRF values for various compounds out of quality control limits. Samples were not affected due to identified compounds not found above detection limits; therefore, reported data is valid.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges.

Holding Times and Preservatives

Holding times from sample collection to sample extraction/analysis for volatiles were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

A 10x serial dilution was required on the initial analysis Sample DCON6-Decon H2O D-6 due to foaming over of the sample during purge and trap method protocol. A 10x serial dilution was also required on the confirmation analysis for Sample MW202A-GW01 due to high concentration.

Metals Analyses / SW-846 6000/7000 Series

Sample Information

Copper and Zinc were detected on Sample DCOND6-Decon H2O D-6 above assigned detection limits. Sample DCOND7-Decon H2O D-7 displayed a sample result of Zinc above the assigned detection limit. Sample MW201B-GW01 displayed sample results of Chromium, Copper, Lead, Nickel, and Zinc above assigned detection limits. Sample MW202A-GW01 displayed sample results of Arsenic, Chromium, Copper, Lead, Nickel, and Zinc above assigned detection limits. Sample MW202B-MW01 displayed sample results of Arsenic, Chromium, Copper, Lead, Nickel, and Zinc above assigned detection limits.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial and continuing calibrations met quality control criteria for this Metals analysis.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges, except for surrogate recoveries for Silver and Antimony. This was encountered in the MS/MSD analyses and was due to the precipitation of the spike analysis and the presence of concentrated acid. Results remain valid.

Holding Times and Preservatives

Holding times from sample collection to sample digestion/analysis for Metals were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

A serial dilution was required when samples were analyzed for Method 7470 for Mercury at a 2x factor.

Data Evaluation Case Narrative Summary

NEI/GTEL Client ID: OTC01OTC01
Login Number: W6120352
Project ID Number: 1315-269-4A
Project ID Name: Illinois ANG at Capital Airport / Springfield, Illinois

Samples were sampled on 12/19/96 and received at the laboratory for analyses on 12/20/96.

Six water samples were analyzed for Halogenated/Aromatic Volatile analyses by Solid Waste Methods-846 8010/8020. Second Column Confirmation was performed on all samples that were detected with VOCs above assigned detection limits. Five water samples were analyzed for Metals analysis by Solid Waste Methods, 6000/7000 Series. Two soil samples were analyzed by Toxicity Characteristic Leaching Procedure (TCLP) for Volatile Organics and Inorganic Metal analyses.

Halogenated/Aromatic Volatile Analyses / SW-846 8010/8020

Sample Information

Sample MW104-GW04 displayed results above assigned detection limits on Ethylbenzene and Total Xylenes. Second Column Confirmation displayed and verified quantitated results were valid. Sample 2-RB02 displayed a result on Chloroform above the assigned detection limit, and did not have a second column confirmation performed to verify contamination.

Method Blanks

All method blanks were found to be clean with no target compounds detected, except for compound 1,3-Dichloropropane that was present above the assigned detection limit. No samples were affected due to the compound not being present in samples. Reported data remains valid.

Initial and Continuing Calibration

The initial calibration met quality control criteria for this volatile analysis. The continuing calibrations conducted show %RPD and/or minimum RRF values for various compounds out of quality control limits. Samples were not affected due to identified compounds not found above detection limits; therefore, reported data is valid.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges, except for second confirmation sample MW104-GW04 for surrogate Dibromofluoromethane displaying recoveries outside QC Limits. Sample results were not affected due to no results above detection limits; therefore, reported data is valid.

Holding Times and Preservatives

Holding times from sample collection to sample extraction/analysis for volatiles were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

No serial dilutions were required when samples were analyzed in accordance with method protocol.

TCLP Volatile Organics Analysis / SW-846 8240

Sample Information

No samples were found to have results above assigned TCLP detection limits.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial and continuing calibrations met quality control criteria for this volatile analysis.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges.

Holding Times and Preservatives

Holding times from sample collection to sample extraction/analysis for volatiles were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

No serial dilutions were required when samples were analyzed in accordance with method protocol.

TCLP Metals Analyses / SW-846 6000/7000 Series

Sample Information

No samples were found to have results above assigned TCLP detection limits

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial and continuing calibrations met quality control criteria for this TCLP Metals analysis.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges.

Holding Times and Preservatives

Holding times from sample collection to sample digestion/analysis for TCLP Metals were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

No serial dilutions were required when samples were analyzed in accordance with method protocol.

Metals Analyses / SW-846 6000/7000 Series

Sample Information

Zinc was detected in sample MW102-GW04 above the assigned detection limit. Sample MW103-GW04 displayed sample results with Lead and Zinc above assigned detection limits. Sample MW104-GW04 displayed Arsenic, Lead, and Zinc above assigned detection limits. And, Sample W101-GW04 displayed Arsenic, Copper, Lead, and Zinc with results above assigned detection limits.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial and continuing calibrations met quality control criteria for this Metals analysis.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges.

Holding Times and Preservatives

Holding times from sample collection to sample digestion/analysis for Metals were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

A serial dilution was required when samples were analyzed for Method 7470 for Mercury at a 2x factor.

Data Evaluation Case Narrative Summary

NEI/GTEL Client ID: OTC01OTC01
Login Number: W6120253
Project ID Number: 1315-269-4A
Project ID Name: Illinois ANG at Capital Airport / Springfield, Illinois

Samples were sampled on 12/11/96 (soils) and 12/13/96 (waters) and received at the laboratory for analyses on 12/14/96.

Two soil samples were analyzed for Volatile Organic analysis by Solid Waste Methods-846 8240. Three water samples were analyzed for Halogenated/Aromatic Volatile analyses by Solid Waste Methods-846 8010/8020. Second Column Confirmation was performed on all samples with VOCs detected above assigned detection limits. Two soil and two water samples were analyzed for Metals analysis by Solid Waste Methods, 6000/7000 Series.

Volatile Organic Analyses / SW-846 8240

Sample Information

Samples 201B01-MW201B (0.0'-0.5') and 202B01-MW202B (0.0'-0.5') displayed results that were above the assigned detection limit on Methylene Chloride. **No Second Column Confirmation was performed and therefore the values are estimated and flagged with a "J" flag.** The Trip Blank also displayed results verifying the presence of Methylene Chloride.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial calibration met quality control criteria for this volatile analysis. The continuing calibrations conducted show %RPD and/or minimum RRF values for various compounds out of quality control limits. Samples were not affected due to identified compounds not found above detection limits; therefore, reported data is valid.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges.

Holding Times and Preservatives

Holding times from sample collection to sample extraction/analysis for volatiles were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

No serial dilutions were required when samples were analyzed in accordance with method protocol.

Halogenated/Aromatic Volatile Analyses / SW-846 8010/8020

Sample Information

Sample 2-RB01 displayed a result above the assigned detection limit on Chloroform. Second Column Confirmation displayed similar results, verifying the presence of Chloroform. All soil samples with this sample batch were not affected by the Rinseate Blank contamination due to no detection of compounds above assigned detection limits.

Sample 2FB-01 displayed results above assigned detection limits on Chloroform, Bromodichloromethane, and Dibromochloromethane. Second Column Confirmation displayed results verifying the presence of all the compounds initially detected. All soil samples with this sample batch were not affected by the Field Blank contamination due to no detection of compounds above assigned detection limits.

Sample 2-TB01 displayed a result that was above the assigned detection limit on Methylene Chloride. Second Column Confirmation did not confirm the detected compound and therefore is marked with a "J" flag and will be an estimated value. This will be reflected in the associated soil samples of this batch.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial calibration met quality control criteria for this volatile analysis. The continuing calibrations conducted show %RPD and/or minimum RRF values for various compounds out of quality control limits. Samples were not affected due to identified compounds not found above detection limits; therefore, reported data is valid.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges.

Holding Times and Preservatives

Holding times from sample collection to sample extraction/analysis for volatiles were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

No serial dilutions were required when samples were analyzed in accordance with method protocol.

Metals Analyses / SW-846 6000/7000 Series

Sample Information

Chromium, Copper, Lead, Nickel, and Zinc were detected in Sample 201B01-MW201B (0.0'-0.5') above assigned detection limits. Sample 202B01-MW202B (0.0'-0.5') displayed sample results with Chromium, Copper, Lead, Nickel, and Zinc above assigned detection limits.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial and continuing calibrations met quality control criteria for this Metals analysis.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges, except for surrogate recoveries for Silver and Antimony. This was encountered in the MS/MSD analyses and was due to the precipitation of the spike analysis and the presence of concentrated acid. Results remain valid.

Holding Times and Preservatives

Holding times from sample collection to sample digestion/analysis for Metals were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

A serial dilution was required when samples were analyzed for Method 7470 for Mercury at a 2x factor.

APPENDIX J
FIELD ANALYTICAL DATA



Midwest Region

4211 May Avenue
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(316) 945-2624
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May 13, 1997

Kathryn Pritchett
Operational Technologies Corp.
4100 N.W. Loop 410
Suite 230
San Antonio, TX 78229

RE: NEI/GTEL Client ID:	OTC010TC01
Login Number:	W7040021
Project ID (number):	1315-269
Project ID (name):	OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Dear Kathryn Pritchett:

This report, previously dated 04/28/97, is a reissue.

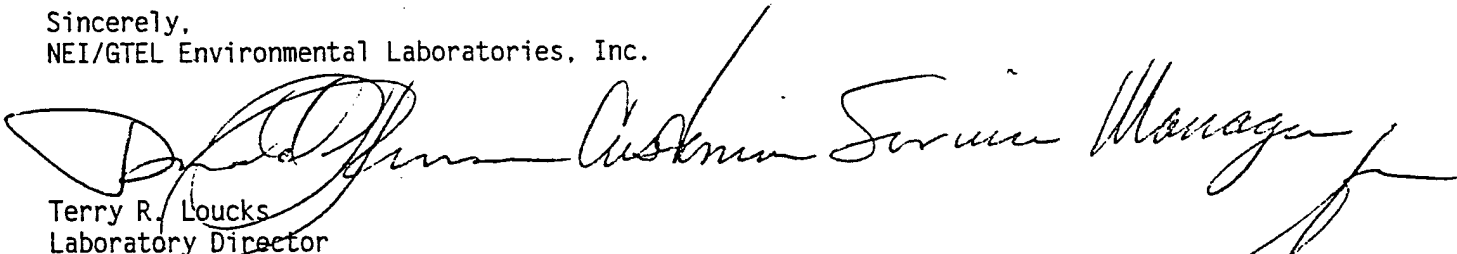
Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 04/02/97 under Chain-of-Custody Number(s) 50584 & 50583.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the State of Kansas under Certification Number E-10103.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
NEI/GTEL Environmental Laboratories, Inc.


Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040021

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8240B

Matrix: Low Soil

NEI/GTEL Sample Number	W7040021-06	W7040021-07	W7040021-08	W7040021-09
Client ID	SD-01	SD-02	SD-03	MS/MSD-SD
Date Sampled	04/01/97	04/01/97	04/01/97	04/01/97
Date Analyzed	04/08/97	04/08/97	04/04/97	04/05/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
Chloromethane	10.	ug/kg	< 10.	< 10.	< 10.	< 10.
Bromomethane	10.	ug/kg	< 10.	< 10.	< 10.	< 10.
Vinyl chloride	10.	ug/kg	< 10.	< 10.	< 10.	< 10.
Chloroethane	10.	ug/kg	< 10.	< 10.	< 10.	< 10.
Methylene chloride	10.	ug/kg	< 10.	< 10.	< 10.	< 10.
Acetone	20.	ug/kg	< 20.	< 20.	< 20.	27.
Carbon disulfide	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethane	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
cis-1,2-Dichloroethene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
trans-1,2-Dichloroethene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Chloroform	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dichloroethane	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
2-Butanone	20.	ug/kg	< 20.	< 20.	< 20.	< 20.
1,1,1-Trichloroethane	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Carbon tetrachloride	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl acetate	20.	ug/kg	< 20.	< 20.	< 20.	< 20.
Bromodichloromethane	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dichloropropane	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
cis-1,3-Dichloropropene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Trichloroethene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Dibromochloromethane	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
2-Chloroethylvinyl ether	10.	ug/kg	< 10.	< 10.	< 10.	< 10.
trans-1,3-Dichloropropene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Bromoform	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-pentanone	20.	ug/kg	< 20.	< 20.	< 20.	< 20.
2-Hexanone	20.	ug/kg	< 20.	< 20.	< 20.	< 20.
Tetrachloroethene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
1,1,2,2-Tetrachloroethane	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Chlorobenzene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Styrene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Xylenes (total)	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dichlorobenzene	10.	ug/kg	< 10.	< 10.	< 10.	< 10.
1,3-Dichlorobenzene	10.	ug/kg	< 10.	< 10.	< 10.	< 10.
1,4-Dichlorobenzene	10.	ug/kg	< 10.	< 10.	< 10.	< 10.

NEI/GTEL Wichita, KS

W7040021

Page: 1

Reissued Report

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040021

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8240B

Matrix: Low Soil

NEI/GTEL Sample Number	W7040021-06	W7040021-07	W7040021-08	W7040021-09
Client ID	SD-01	SD-02	SD-03	MS/MSD-SD
Date Sampled	04/01/97	04/01/97	04/01/97	04/01/97
Date Analyzed	04/08/97	04/08/97	04/04/97	04/05/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
Percent Solids	--	%	47.9	52.8	59.7	40.5

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8240B:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

W7040021-09:

1 out of 3 surrogates was outside control limits due to matrix effects as confirmed by sample re-analysis. There appears to be non-homogeneity of the sample in the the value for acetone in the re-analysis sample was 150 ppb.

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040021

Volatile Organics

Project ID (number): 1315-269

Method: EPA 8240B

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Low Soil

Surrogate Results

QC Batch No.	Reference	Sample ID	DCA-D4	TOL-D8	4-BFB
Method: EPA 8240B	Acceptability Limits:		70-121%	81-117%	74-121%
040497HP3-1	BL040497HP3	Method blanks low	101.	101.	96.2
040497HP3-2	LS040497HP3	Laboratory control	104.	97.5	98.1
040497HP3-3	LSD040497HP3	LCS Soil Duplicate	108.	99.1	97.9
040497HP3-4	MS04002109	Matrix Spike	110.	107.	108.
040497HP3-5	MD04002109	Matrix Spike Dupli	107.	108.	111.
040497HP3-6	BL040897HP3	Method blanks low	104.	101.	99.3
--	04002106	SD-01	106.	105.	109.
--	04002107	SD-02	116.	105.	109.
--	04002108	SD-03	104.	102.	113.
--	04002109	MS/MSD-SD	106.	112.	122.*

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

NEI/GTEL Client ID: OTC010TC01
 Login Number: W7040021
 Project ID (number): 1315-269
 Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

QUALITY CONTROL RESULTS

Volatile Organics
 Method: EPA 8240B
 Matrix: Low Soil

Method Blank Results

QC Batch No: 040497HP3-1 040497HP3-6
 Date Analyzed: 04-APR-97 08-APR-97

Analyte	Method: EPA 8240B	Concentration: ug/kg
Chloromethane	< 10.0	< 10.0
Bromomethane	< 10.0	< 10.0
Vinyl chloride	< 10.0	< 10.0
Chloroethane	< 10.0	< 10.0
Methylene chloride	< 10.0	13.2*
Acetone	< 20.0	< 20.0
Carbon disulfide	< 5.00	< 5.00
1,1-Dichloroethene	< 5.00	< 5.00
1,1-Dichloroethane	< 5.00	< 5.00
cis-1,2-Dichloroethene	< 5.00	< 5.00
trans-1,2-Dichloroethene	< 5.00	< 5.00
Chloroform	< 5.00	< 5.00
1,2-Dichloroethane	< 5.00	< 5.00
2-Butanone	< 20.0	< 20.0
1,1,1-Trichloroethane	< 5.00	< 5.00
Carbon tetrachloride	< 5.00	< 5.00
Vinyl acetate	< 20.0	< 20.0
Bromodichloromethane	< 5.00	< 5.00
1,2-Dichloropropane	< 5.00	< 5.00
cis-1,3-Dichloropropene	< 5.00	< 5.00
Trichloroethene	< 5.00	< 5.00
Dibromochloromethane	< 5.00	< 5.00
1,1,2-Trichloroethane	< 5.00	< 5.00
Benzene	< 5.00	< 5.00
2-Chloroethyl vinyl ether	< 10.0	< 10.0
trans-1,3-Dichloropropene	< 5.00	< 5.00
Bromoform	< 5.00	< 5.00
4-Methyl-2-pentanone	< 20.0	< 20.0
2-Hexanone	< 20.0	< 20.0
Tetrachloroethene	< 5.00	< 5.00
1,1,2,2-Tetrachloroethane	< 5.00	< 5.00
Toluene	< 5.00	< 5.00
Chlorobenzene	< 5.00	< 5.00
Ethylbenzene	< 5.00	< 5.00
Styrene	< 5.00	< 5.00
Xylenes (Total)	< 5.00	< 5.00
1,2-Dichlorobenzene	< 10.0	< 10.0
1,3-Dichlorobenzene	< 10.0	< 10.0
1,4-Dichlorobenzene	< 10.0	< 10.0

Notes:

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040021

Volatile Organics

Project ID (number): 1315-269

Method: EPA 8240B

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Low Soil

Matrix Spike(MS) and Matrix Spike Duplicate(MSD) Results

GTEL Sample ID:W7040021-09		MS ID:MS04002109		MSD ID:MD04002109						
Analysis Date: 05-APR-97		05-APR-97		05-APR-97						
Units: ug/kg	Sample	Spikes Added		MS	MS	MSD	MSD	Acceptability Limits		
Analyte	Conc.	MS	MSD	Conc.	% Rec.	Conc.	% Rec.	RPD	RPD	%Rec.
1,1-Dichloroethene	< 5.0 (0.000)	50.0	50.0	57.9	116	58.4	117	0.900	24	59-172
Trichloroethene	< 5.0 (0.000)	50.0	50.0	66.1	132	66.0	132	0.00	22	62-137
Benzene	< 5.0 (0.000)	50.0	50.0	59.3	119	60.2	120	0.800	21	66-142
Toluene	< 5.0 (0.000)	50.0	50.0	61.2	122	63.2	126	3.20	21	59-139
Chlorobenzene	< 5.0 (0.000)	50.0	50.0	60.2	120	59.4	119	0.800	21	60-133

Notes:

Values in parentheses in the sample concentration column are used for % recovery calculations.

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040021

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organic

Method: EPA 8240B

Matrix: Low Soil

Laboratory Control Sample (LCS) and Laboratory Control Duplicate Results

Analyte	Spike Amount	LCS		LCS Duplicate		LCS Duplicate		Acceptability Limits	
		Concentration	Recovery, %	Concentration	Recovery, %	RPD, %	RPD, %	RPD, %	Recovery, %
EPA 8240B	Units: ug/kg	QC Batch:040497HP3-3							
1,1-Dichloroethene	50.0	40.1	80.2	40.5	81.0	0.993	22		59-172%
Trichloroethene	50.0	43.0	86.0	41.6	83.2	3.31	24		62-137%
Benzene	50.0	42.5	85.0	40.0	80.0	6.06	21		66-142%
Toluene	50.0	43.2	86.4	41.1	82.2	4.98	21		59-139%
Chlorobenzene	50.0	43.9	87.8	43.0	86.0	2.07	21		60-133%

Notes:

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040021

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organics

Method: EPA 8240B

Matrix: Low Soil

Conformance/Non-Conformance Summary

(X = Requirements Met

* = See Comments

-- = Not Required

NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	--	--	--
Surrogate Recovery	*	--	NA
Holding Time	X	--	--
Method Accuracy	X	--	--
Method Precision	X	--	--
Blank Contamination	*	--	--

Comments:

NEI/GTEL Wichita, KS

W7040021:1

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040021

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8010/8020

Matrix: Aqueous

NEI/GTEL Sample Number	W7040021-01	W7040021-02	W7040021-03	W7040021-04
Client ID	SW-01	SW-03	SW-02	MS/MSD
Date Sampled	04/01/97	04/01/97	04/01/97	04/01/97
Date Analyzed	04/13/97	04/13/97	04/13/97	04/13/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
Dichlorodifluoromethane	5.0	ug/L	< 5.0
Chloromethane	2.0	ug/L	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0
Bromomethane	2.0	ug/L	< 2.0
Chloroethane	1.0	ug/L	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0
Methylene chloride	1.0	ug/L	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0
Chloroform	1.0	ug/L	< 1.0
1,1,1-Trichloroethane	1.0	ug/L	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0
Benzene	0.5	ug/L	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 1.0
Trichloroethene	1.0	ug/L	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0
Toluene	1.0	ug/L	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0
Chlorobenzene	1.0	ug/L	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0
Xylenes (total)	1.0	ug/L	< 1.0
Bromoform	2.0	ug/L	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:

NEI/GTEL Wichita, KS

W7040021

Reissued Report

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040021

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8010/8020

Matrix: Aqueous

NEI/GTEL Sample Number	W7040021-01	W7040021-02	W7040021-03	W7040021-04
Client ID	SW-01	SW-03	SW-02	MS/MSD
Date Sampled	04/01/97	04/01/97	04/01/97	04/01/97
Date Analyzed	04/13/97	04/13/97	04/13/97	04/13/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01
Login Number: W7040021
Project ID (number): 1315-269
Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8010/8020
Matrix: Aqueous

NEI/GTEL Sample Number	W7040021-05	--	--	--
Client ID	BRASS SLEEVE RINSATE	--	--	--
Date Sampled	04/01/97	--	--	--
Date Analyzed	04/13/97	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:
Dichlorodifluoromethane	5.0	ug/L	< 5.0
Chloromethane	2.0	ug/L	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0
Bromomethane	2.0	ug/L	< 2.0
Chloroethane	1.0	ug/L	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0
Methylene chloride	1.0	ug/L	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0
Chloroform	1.0	ug/L	< 1.0
1,1,1-Trichloroethane	1.0	ug/L	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0
Benzene	0.5	ug/L	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 1.0
Trichloroethene	1.0	ug/L	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0
Toluene	1.0	ug/L	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0
Chlorobenzene	1.0	ug/L	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0
Xylenes (total)	1.0	ug/L	< 1.0
Bromoform	2.0	ug/L	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:
NEI/GTEL Wichita, KS
W7040021
Reissued Report

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040021

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8010/8020

Matrix: Aqueous

NEI/GTEL Sample Number	W7040021-05	--	--	--
Client ID	BRASS SLEEVE RINSATE	--	--	--
Date Sampled	04/01/97	--	--	--
Date Analyzed	04/13/97	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

NEI/GTEL Wichita, KS

W7040021

Reissued Report

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040021

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organics

Method: EPA 8010/8

Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	BFB ELCD	BFB PID
Method: EPA 8010/8020			Acceptability Limits: 52.8-144% 77.3-129%	
041397GC11-1	CV0413972011	Calibration Verifi	101.	101
041397GC11-2	BW04139711	Method Blank Water	104.	99.6
041397GC11-4	MS04002104	Matrix Spike	98.3	101.
041397GC11-6	DP04001601	Duplicate	92.9	101.
041397GC11-8	LW0413972011	Laboratory Control	93.1	102
--	04002101	SW-01	98.6	99.6
--	04002102	SW-03	100	99.3
--	04002103	SW-02	98.5	99.3
--	04002104	MS/MSD	106.	99.5
--	04002105	BRASS SLEEVE RINSA	114.	98.3

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

NEI/GTEL Wichita, KS

W7040021:2

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040021

Volatile Organics

Project ID (number): 1315-269

Method: EPA 8010/8

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Method Blank Results

QC Batch No: 041397GC11-2

Date Analyzed: 13-APR-97

Analyte Method: EPA 8010/8020 Concentration: ug/L

Dichlorodifluoromethane	< 5.00
Chloromethane	< 2.00
Vinyl chloride	< 1.00
Bromomethane	< 2.00
Chloroethane	< 1.00
Trichlorofluoromethane	< 1.00
1,1-Dichloroethene	< 1.00
Methylene chloride	< 1.00
trans-1,2-Dichloroethene	< 1.00
1,1-Dichloroethane	< 1.00
cis-1,2-Dichloroethene	< 1.00
Chloroform	< 1.00
1,1,1-Trichloroethane	< 1.00
Carbon tetrachloride	< 1.00
Benzene	< 0.500
1,2-Dichloroethane	< 1.00
Trichloroethene	< 1.00
1,2-Dichloropropane	< 1.00
Bromodichloromethane	< 1.00
2-Chloroethyl vinyl ether	< 1.00
cis-1,3-Dichloropropene	< 1.00
trans-1,3-Dichloropropene	< 1.00
Toluene	< 1.00
1,1,2-Trichloroethane	< 1.00
Tetrachloroethene	< 1.00
Dibromochloromethane	< 1.00
Chlorobenzene	< 1.00
Ethylbenzene	< 1.00
Xylenes (Total)	< 1.00
Bromoform	< 2.00
1,1,2,2-Tetrachloroethane	< 1.00
1,3-Dichlorobenzene	< 1.00
1,4-Dichlorobenzene	< 1.00
1,2-Dichlorobenzene	< 1.00

Notes:

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040021

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organics

Method: EPA 8010/8

Matrix: Aqueous

Calibration Verification Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8010/8020 Units:ug/L	QC Batch:041397GC11-1			
Dichlorodifluoromethane	20.0	22.9	115	40-160%
Chloromethane	20.0	18.4	92.0	59.5-140.5%
Vinyl chloride	20.0	19.9	99.5	68.5-131.5%
Bromomethane	20.0	19.3	96.5	58.5-141.5%
Chloroethane	20.0	18.4	92.0	77-123%
Trichlorofluoromethane	20.0	18.5	92.5	66.5-133.5%
1,1-Dichloroethene	20.0	18.7	93.5	63-137%
Methylene chloride	20.0	19.3	96.5	77.5-122.5%
trans-1,2-Dichloroethene	20.0	19.1	95.5	64-136%
1,1-Dichloroethane	20.0	19.3	96.5	71.5-116%
cis-1,2-Dichloroethene	20.0	19.2	96.0	64-116%
Chloroform	20.0	19.4	97.0	75-125%
1,1,1-Trichloroethane	20.0	18.9	94.5	71-129%
Carbon tetrachloride	20.0	19.2	96.0	68.5-131.5%
Benzene	20.0	19.7	98.5	77-123%
1,2-Dichloroethane	20.0	19.1	95.5	71.5-128.5%
Trichloroethene	20.0	19.0	95.0	77-123%
1,2-Dichloropropane	20.0	19.3	96.5	74-126%
Bromodichloromethane	20.0	18.3	91.5	76-124%
2-Chloroethyl vinyl ether	20.0	16.1	80.5	60-140%
cis-1,3-Dichloropropene	20.0	17.6	88.0	64-136%
trans-1,3-Dichloropropene	20.0	17.8	89.0	64-136%
Toluene	20.0	19.9	99.5	77.5-122.5%
1,1,2-Trichloroethane	20.0	19.6	98.0	78.5-121.5%
Tetrachloroethene	20.0	19.3	96.5	70-130%
Dibromochloromethane	20.0	20.2	101	65.5-134.5%
Chlorobenzene	20.0	19.1	95.5	72-128%
Ethylbenzene	20.0	20.9	105	63-137%
Xylenes (Total)	60.0	61.6	103	36-136%
Bromoform	20.0	19.8	99.0	73.5-126.5%
1,1,2,2-Tetrachloroethane	20.0	19.6	98.0	49-151%
1,3-Dichlorobenzene	20.0	19.0	95.0	49.5-150.5%
1,4-Dichlorobenzene	20.0	19.7	98.5	69.5-130.5%
1,2-Dichlorobenzene	20.0	19.7	98.5	70-130%

Notes:

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040021

Volatile Organics

Project ID (number): 1315-269

Method: EPA 8010/8

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Laboratory Control Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8010/8020 Units:ug/L	QC Batch:041397GC11-8			
Dichlorodifluoromethane	20.0	25.9	130.	40-160%
Chloromethane	20.0	19.4	97.0	10-193%
Vinyl chloride	20.0	22.9	115.	28-163%
Bromomethane	20.0	18.6	93.0	10-144%
Chloroethane	20.0	19.4	97.0	46-137%
Trichlorofluoromethane	20.0	20.9	105.	21-156%
1,1-Dichloroethene	20.0	23.5	118.	28-167%
Methylene chloride	20.0	19.9	99.5	25-162%
trans-1,2-Dichloroethene	20.0	20.4	102.	38-155%
1,1-Dichloroethane	20.0	19.7	98.5	47-132%
cis-1,2-Dichloroethene	20.0	18.7	93.5	38-155%
Chloroform	20.0	20.0	100.	49-133%
1,1,1-Trichloroethane	20.0	20.4	102.	41-138%
Carbon tetrachloride	20.0	20.5	103.	43-143%
Benzene	20.0	19.7	98.5	39-150%
1,2-Dichloroethane	20.0	20.2	101.	51-147%
Trichloroethene	20.0	25.3	127.	35-146%
1,2-Dichloropropane	20.0	19.8	99.0	44-156%
Bromodichloromethane	20.0	18.2	91.0	42-172%
2-Chloroethyl vinyl ether	20.0	18.6	93.0	14-186%
cis-1,3-Dichloropropene	20.0	17.8	89.0	22-178%
trans-1,3-Dichloropropene	20.0	17.0	85.0	22-178%
Toluene	20.0	20.0	100.	46-148%
1,1,2-Trichloroethane	20.0	18.6	93.0	39-136%
Tetrachloroethene	20.0	19.6	98.0	26-162%
Dibromochloromethane	20.0	18.3	91.5	24-191%
Chlorobenzene	20.0	19.3	96.5	38-150%
Ethylbenzene	20.0	20.9	105.	32-160%
Xylenes (Total)	60.0	61.6	103.	36-136%
Bromoform	20.0	17.5	87.5	13-159%
1,1,2,2-Tetrachloroethane	20.0	11.6	58.0	10-184%
1,3-Dichlorobenzene	20.0	18.1	90.5	10-187%
1,4-Dichlorobenzene	20.0	19.0	95.0	42-143%
1,2-Dichlorobenzene	20.0	19.1	95.5	10-208%

Notes:

NEI/GTEL Wichita, KS

W7040021:5

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040021

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organics

Method: EPA 8010/8

Matrix: Aqueous

Duplicate Sample Results

Analyte	Original Concentration	Duplicate Concentration	RPD, %	Acceptability Limits, %	
EPA 8010/8020 Units: ug/L	QC Batch: 041397GC11-6		GTEL Sample ID: W7040016-01		Client ID: Batch QC
Dichlorodifluoromethane	< 50.0	< 50.0	NA	35.4	
Chloromethane	< 20.0	< 20.0	NA	24.2	
Vinyl chloride	< 10.0	< 10.0	NA	18.6	
Bromomethane	< 20.0	< 20.0	NA	24.8	
Chloroethane	< 10.0	< 10.0	NA	14.4	
Trichlorofluoromethane	< 10.0	< 10.0	NA	19.6	
1,1-Dichloroethene	256	296	14.5	21.6	
Methylene chloride	< 10.0	< 10.0	NA	13.1	
trans-1,2-Dichloroethene	< 10.0	< 10.0	NA	20.9	
1,1-Dichloroethane	19.1	21.2	10.4	10.5	
cis-1,2-Dichloroethene	30.6	33.4	8.75	20.9	
Chloroform	< 10.0	< 10.0	NA	14.7	
1,1,1-Trichloroethane	112	128	13.3	16	
Carbon tetrachloride	< 10.0	< 10.0	NA	18.3	
Benzene	< 5.00	< 5.00	NA	13.4	
1,2-Dichloroethane	< 10.0	< 10.0	NA	17	
Trichloroethene	1780	1730	2.85	13.7	
1,2-Dichloropropane	< 10.0	< 10.0	NA	17	
Bromodichloromethane	< 10.0	< 10.0	NA	13.1	
2-Chloroethyl vinyl ether	< 10.0	< 10.0	NA	27.1	
cis-1,3-Dichloropropene	< 10.0	< 10.0	NA	23.8	
trans-1,3-Dichloropropene	< 10.0	< 10.0	NA	23.8	
Toluene	< 10.0	< 10.0	NA	13.1	
1,1,2-Trichloroethane	< 10.0	< 10.0	NA	12.8	
Tetrachloroethene	< 10.0	< 10.0	NA	17.7	
Dibromochloromethane	< 10.0	< 10.0	NA	20.6	
Chlorobenzene	< 10.0	< 10.0	NA	16.4	
Ethylbenzene	< 10.0	< 10.0	NA	40	
Xylenes (Total)	< 10.0	< 10.0	NA	31.1	
Bromoform	< 20.0	< 20.0	NA	15.4	
1,1,2,2-Tetrachloroethane	< 10.0	< 10.0	NA	30	
1,3-Dichlorobenzene	< 10.0	< 10.0	NA	29.7	
1,4-Dichlorobenzene	< 10.0	< 10.0	NA	18	
1,2-Dichlorobenzene	< 10.0	< 10.0	NA	18	

Notes:

NA - The concentration of the analyte is less than the reporting limit.

NEI/GTEL Wichita, KS

W7040021:6

NEI/GTEL Client ID: OTC01OTC01

QUALITY CONTROL RESULTS

Login Number: W7040021

Volatile Organics

Project ID (number): 1315-269

Method: EPA 8010/8

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Matrix Spike(MS) Results

GTEL Sample ID:W7040021-04

MS ID:MS04002104

Analysis Date: 13-APR-97

14-APR-97

Units: ug/L	Sample	Spike	MS	MS	Acceptability Limits
Analyte	Conc.	Added	Conc.	% Rec.	%Rec.
Dichlorodifluoromethane	< 5.0 (0.000)	20.0	23.9	120.	40-160
Chloromethane	< 2.0 (0.000)	20.0	20.6	103.	10-193
Vinyl chloride	< 1.0 (0.000)	20.0	21.9	110.	28-163
Bromomethane	< 2.0 (0.000)	20.0	19.3	96.5	10-144
Chloroethane	< 1.0 (0.000)	20.0	18.9	94.5	46-137
Trichlorofluoromethane	< 1.0 (0.000)	20.0	17.6	88.0	21-156
1,1-Dichloroethene	< 1.0 (0.000)	20.0	21.7	109.	28-167
Methylene chloride	< 1.0 (0.000)	20.0	20.0	100.	25-162
trans-1,2-Dichloroethene	< 1.0 (0.000)	20.0	20.4	102.	38-155
1,1-Dichloroethane	< 1.0 (0.000)	20.0	20.6	103.	47-132
cis-1,2-Dichloroethene	< 1.0 (0.000)	20.0	19.7	98.5	38-155
Chloroform	< 1.0 (0.000)	20.0	20.3	102.	49-133
1,1,1-Trichloroethane	< 1.0 (0.000)	20.0	20.6	103.	41-138
Carbon tetrachloride	< 1.0 (0.000)	20.0	21.0	105.	43-143
Benzene	< 0.50(0.000)	20.0	20.4	102.	39-150
1,2-Dichloroethane	< 1.0 (0.000)	20.0	19.9	99.5	51-147
Trichloroethene	< 1.0 (0.000)	20.0	19.7	98.5	35-146
1,2-Dichloropropane	< 1.0 (0.000)	20.0	20.0	100.	44-156
Bromodichloromethane	< 1.0 (0.000)	20.0	18.5	92.5	42-172
2-Chloroethyl vinyl ether	< 1.0 (0.000)	20.0	0.00	0.00*	14-186
cis-1,3-Dichloropropene	< 1.0 (0.000)	20.0	19.2	96.0	22-178
trans-1,3-Dichloropropene	< 1.0 (0.000)	20.0	18.7	93.5	22-178
Toluene	< 1.0 (0.100)	20.0	20.5	102.	46-148
1,1,2-Trichloroethane	< 1.0 (0.000)	20.0	19.8	99.0	39-136
Tetrachloroethene	< 1.0 (0.000)	20.0	20.3	102.	26-162
Dibromochloromethane	< 1.0 (0.000)	20.0	19.1	95.5	24-191
Chlorobenzene	< 1.0 (0.000)	20.0	20.4	102.	38-150
Ethylbenzene	< 1.0 (0.000)	20.0	21.4	107.	32-160
Xylenes (Total)	< 1.0 (0.000)	60.0	62.9	105.	36-136
Bromoform	< 2.0 (0.000)	20.0	18.6	93.0	13-159
1,1,2,2-Tetrachloroethane	< 1.0 (0.000)	20.0	19.3	96.5	10-184
1,3-Dichlorobenzene	< 1.0 (0.000)	20.0	19.4	97.0	10-187
1,4-Dichlorobenzene	< 1.0 (0.000)	20.0	18.5	92.5	42-143
1,2-Dichlorobenzene	< 1.0 (0.000)	20.0	20.0	100.	10-208

Notes:

Values in parentheses in the sample concentration column are used for % recovery calculations.

041397GC11-4: 2-Chloroethylvinyl ether decomposes in the presence of Hydrochloric Acid (used as a preservative).

NEI/GTEL Wichita, KS

W7040021:7

NEI/GTEL Client ID: OTC010TC01
Login Number: W7040021
Project ID (number): 1315-269
Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8010/8
Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	X	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	*	--	--
Method Precision	X	--	--
Blank Contamination	X	--	--

Comments:

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040021

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below

Matrix: Aqueous

NEI/GTEL Sample Number	W7040021-01	W7040021-02	W7040021-03	W7040021-04
Client ID	SW-01	SW-03	SW-02	MS/MSD
Date Sampled	04/01/97	04/01/97	04/01/97	04/01/97
EPA 6010A	Date Prepared	04/08/97	04/08/97	04/08/97
EPA 6010A	Date Analyzed	04/08/97	04/08/97	04/08/97
EPA 6010A	Dilution Factor	1.00	1.00	1.00
EPA 7041	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7041	Date Analyzed	04/08/97	04/08/97	04/08/97
EPA 7041	Dilution Factor	1.00	1.00	1.00
EPA 7060A	Date Prepared	04/09/97	04/09/97	04/09/97
EPA 7060A	Date Analyzed	04/10/97	04/10/97	04/10/97
EPA 7060A	Dilution Factor	1.00	1.00	1.00
EPA 7421	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7421	Date Analyzed	04/07/97	04/07/97	04/07/97
EPA 7421	Dilution Factor	1.00	1.00	1.00
EPA 7470A	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7470A	Date Analyzed	04/07/97	04/07/97	04/07/97
EPA 7470A	Dilution Factor	1.00	1.00	1.00
EPA 7740	Date Prepared	04/09/97	04/09/97	04/09/97
EPA 7740	Date Analyzed	04/14/97	04/14/97	04/14/97
EPA 7740	Dilution Factor	1.00	1.00	1.00
EPA 7841	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7841	Date Analyzed	04/09/97	04/09/97	04/09/97
EPA 7841	Dilution Factor	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
Inorganics (MT, WC)			
Antimony	EPA 7041	10. ug/L	< 10. < 10. < 10. < 10.
Arsenic	EPA 7060A	10. ug/L	< 10. < 10. < 10. < 10.
Beryllium	EPA 6010A	5.0 ug/L	< 5.0 < 5.0 < 5.0 < 5.0
Cadmium	EPA 6010A	20. ug/L	< 20. < 20. < 20. < 20.
Chromium	EPA 6010A	30. ug/L	< 30. < 30. < 30. < 30.
Copper	EPA 6010A	25. ug/L	< 25. < 25. < 25. < 25.
Lead	EPA 7421	4.0 ug/L	9.5 13. 7.3 14.
Mercury	EPA 7470A	0.50 ug/L	< 0.50 < 0.50 < 0.50 < 0.50
Nickel	EPA 6010A	40. ug/L	< 40. < 40. < 40. < 40.
Selenium	EPA 7740	10. ug/L	< 10. < 10. < 10. < 10.
Silver	EPA 6010A	20. ug/L	< 20. < 20. < 20. < 20.
Thallium	EPA 7841	10. ug/L	< 10. < 10. < 10. < 10.
Zinc	EPA 6010A	20. ug/L	< 20. 29. < 20. 43.

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W7040021

Reissued Report

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040021

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below

Matrix: Aqueous

NEI/GTEL Sample Number	W7040021-01	W7040021-02	W7040021-03	W7040021-04
Client ID	SW-01	SW-03	SW-02	MS/MSD
Date Sampled	04/01/97	04/01/97	04/01/97	04/01/97
EPA 6010A	Date Prepared	04/08/97	04/08/97	04/08/97
EPA 6010A	Date Analyzed	04/08/97	04/08/97	04/08/97
EPA 6010A	Dilution Factor	1.00	1.00	1.00
EPA 7041	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7041	Date Analyzed	04/08/97	04/08/97	04/08/97
EPA 7041	Dilution Factor	1.00	1.00	1.00
EPA 7060A	Date Prepared	04/09/97	04/09/97	04/09/97
EPA 7060A	Date Analyzed	04/10/97	04/10/97	04/10/97
EPA 7060A	Dilution Factor	1.00	1.00	1.00
EPA 7421	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7421	Date Analyzed	04/07/97	04/07/97	04/07/97
EPA 7421	Dilution Factor	1.00	1.00	1.00
EPA 7470A	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7470A	Date Analyzed	04/07/97	04/07/97	04/07/97
EPA 7470A	Dilution Factor	1.00	1.00	1.00
EPA 7740	Date Prepared	04/09/97	04/09/97	04/09/97
EPA 7740	Date Analyzed	04/14/97	04/14/97	04/14/97
EPA 7740	Dilution Factor	1.00	1.00	1.00
EPA 7841	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7841	Date Analyzed	04/09/97	04/09/97	04/09/97
EPA 7841	Dilution Factor	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
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EPA 7421, EPA 7841:

Digestion for Total Metals by EPA Method 3020A.

Digestion for Total Metals by EPA Method 3020A.

EPA 7060A, EPA 7740:

Digestion by EPA Method 7060.

EPA 7470A:

Digestion is method specific.

EPA 6010A, EPA 7041, EPA 7060A, EPA 7421, EPA 7470A, EPA 7740, EPA 7841:

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SW-846, Third Edition including Update 2.

NEI/GTEL Wichita, KS

W7040021

Reissued Report

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC010TC01
Login Number: W7040021
Project ID (number): 1315-269
Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below
Matrix: Aqueous

NEI/GTEL Sample Number		W7040021-05	--	--	--	--
Client ID		BRASS SLEEVE RINSATE	--	--	--	--
Date Sampled		04/01/97	--	--	--	--
EPA 6010A	Date Prepared	04/08/97	--	--	--	--
EPA 6010A	Date Analyzed	04/08/97	--	--	--	--
EPA 6010A	Dilution Factor	1.00	--	--	--	--
EPA 7041	Date Prepared	04/07/97	--	--	--	--
EPA 7041	Date Analyzed	04/08/97	--	--	--	--
EPA 7041	Dilution Factor	1.00	--	--	--	--
EPA 7060A	Date Prepared	04/09/97	--	--	--	--
EPA 7060A	Date Analyzed	04/10/97	--	--	--	--
EPA 7060A	Dilution Factor	1.00	--	--	--	--
EPA 7421	Date Prepared	04/07/97	--	--	--	--
EPA 7421	Date Analyzed	04/07/97	--	--	--	--
EPA 7421	Dilution Factor	1.00	--	--	--	--
EPA 7470A	Date Prepared	04/07/97	--	--	--	--
EPA 7470A	Date Analyzed	04/07/97	--	--	--	--
EPA 7470A	Dilution Factor	1.00	--	--	--	--
EPA 7740	Date Prepared	04/09/97	--	--	--	--
EPA 7740	Date Analyzed	04/14/97	--	--	--	--
EPA 7740	Dilution Factor	1.00	--	--	--	--
EPA 7841	Date Prepared	04/07/97	--	--	--	--
EPA 7841	Date Analyzed	04/09/97	--	--	--	--
EPA 7841	Dilution Factor	1.00	--	--	--	--

		Reporting				
Analyte		Limit	Units	Concentration:		
Antimony	EPA 7041	10.	ug/L	< 10.	--	--
Arsenic	EPA 7060A	10.	ug/L	< 10.	--	--
Beryllium	EPA 6010A	5.0	ug/L	< 5.0	--	--
Cadmium	EPA 6010A	20.	ug/L	< 20.	--	--
Chromium	EPA 6010A	30.	ug/L	< 30.	--	--
Copper	EPA 6010A	25.	ug/L	< 25.	--	--
Lead	EPA 7421	4.0	ug/L	< 4.0	--	--
Mercury	EPA 7470A	0.50	ug/L	< 0.50	--	--
Nickel	EPA 6010A	40.	ug/L	< 40.	--	--
Selenium	EPA 7740	10.	ug/L	< 10.	--	--
Silver	EPA 6010A	20.	ug/L	< 20.	--	--
Thallium	EPA 7841	10.	ug/L	< 10.	--	--
Zinc	EPA 6010A	20.	ug/L	< 20.	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W7040021

Reissued Report

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040021

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below
Matrix: Aqueous

NEI/GTEL Sample Number		W7040021-05	--	--	--	--
Client ID		BRASS SLEEVE RINSATE	--	--	--	--
Date Sampled		04/01/97	--	--	--	--
EPA 6010A	Date Prepared	04/08/97	--	--	--	--
EPA 6010A	Date Analyzed	04/08/97	--	--	--	--
EPA 6010A	Dilution Factor	1.00	--	--	--	--
EPA 7041	Date Prepared	04/07/97	--	--	--	--
EPA 7041	Date Analyzed	04/08/97	--	--	--	--
EPA 7041	Dilution Factor	1.00	--	--	--	--
EPA 7060A	Date Prepared	04/09/97	--	--	--	--
EPA 7060A	Date Analyzed	04/10/97	--	--	--	--
EPA 7060A	Dilution Factor	1.00	--	--	--	--
EPA 7421	Date Prepared	04/07/97	--	--	--	--
EPA 7421	Date Analyzed	04/07/97	--	--	--	--
EPA 7421	Dilution Factor	1.00	--	--	--	--
EPA 7470A	Date Prepared	04/07/97	--	--	--	--
EPA 7470A	Date Analyzed	04/07/97	--	--	--	--
EPA 7470A	Dilution Factor	1.00	--	--	--	--
EPA 7740	Date Prepared	04/09/97	--	--	--	--
EPA 7740	Date Analyzed	04/14/97	--	--	--	--
EPA 7740	Dilution Factor	1.00	--	--	--	--
EPA 7841	Date Prepared	04/07/97	--	--	--	--
EPA 7841	Date Analyzed	04/09/97	--	--	--	--
EPA 7841	Dilution Factor	1.00	--	--	--	--

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

EPA 7421, EPA 7841:

Digestion for Total Metals by EPA Method 3020A.

Digestion for Total Metals by EPA Method 3020A.

EPA 7060A, EPA 7740:

Digestion by EPA Method 7060.

EPA 7470A:

Digestion is method specific.

EPA 6010A, EPA 7041, EPA 7060A, EPA 7421, EPA 7470A, EPA 7740, EPA 7841:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 2.

Project ID (Number): 1315-269
Project ID (Name): OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0021
Date Reported: 04-16-97

QA NONCONFORMANCE SUMMARY

1.0 Sample Handling

- 1.1 Sample handling and holding time criteria were not met for zero samples.

2.0 Initial Calibration Verification

- 2.1 The validity for the calibration verification was exceeded for zero samples as shown in Table 2.

3.0 Method Blanks

- 3.1 Zero target elements were found in the method blank as shown in Table 3.

4.0 Matrix Spike (MS) Accuracy

- 4.1 The recovery limits were exceeded in the matrix spike.
4.2 The recovery limits for the matrix spike and matrix spike duplicate were exceeded for antimony due to precipitation of the element in the presence of the sample matrix.

5.0 Sample Duplicate Precision

- 5.1 The maximum percent difference (RPD) was exceeded for one element in the matrix spike and matrix spike duplicate samples as shown in Tables 4A and 4B.
5.2 The maximum percent difference (RPD) was exceeded for antimony in the matrix spike and the matrix spike duplicate due to precipitation of the element in the sample matrix.

6.0 Laboratory Control Sample

- 6.1 The recovery limits were not met for zero elements for the laboratory control samples as shown in Table 5.

Project ID (Number): 1315-269
Project ID (Name): OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0021
Date Reported: 04-16-97

Table 2
INITIAL CALIBRATION VERIFICATION QC CHECK SAMPLE REPORT
Metals in Water^a

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	43.8	110	90-110
Arsenic	40.0	40.0	100	90-110
Beryllium	1000	1020	102	90-110
Cadmium	1000	1030	103	90-110
Chromium	1000	1020	102	90-110
Copper	1000	1020	102	90-110
Lead	20.0	20.7	104	90-110
Mercury	4.00	4.17	104	90-110
Nickel	1000	1040	104	90-110
Selenium	40.0	39.4	98.5	90-110
Silver	500	524	105	90-110
Thallium	20.0	20.2	101	90-110
Zinc	1000	1040	104	90-110

a Acceptability limits as per EPA Contract Laboratory Program

Project ID (Number): 1315-269
Project ID (Name): OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0021
Date Reported: 04-16-97

Table 3
BLANK REPORT
Metals in Water

Analyte	Initial Calibration Blank, ug/L	Preparation Blank, ug/L
Antimony	<10	<10
Arsenic	<10	<10
Beryllium	<5.0	<5.0
Cadmium	<20	<20
Chromium	<30	<30
Copper	<25	<25
Lead	<4.0	<4.0
Mercury	<0.50	<0.50
Nickel	<40	<40
Selenium	<10	<10
Silver	<20	<20
Thallium	<10	<10
Zinc	<20	<20

<# Not detected at the indicated detection limit (#)

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0021
 Date Reported: 04-16-97

Table 4A
MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY

Metals in Water

Sample Spiked: Method 6010A W7040112-01
 Sample Spiked: Method 7041 W7040081-01
 Sample Spiked: Method 7060A W7040021-01
 Sample Spiked: Method 7421 W7040081-01
 Sample Spiked: Method 7470A W7040021-01
 Sample Spiked: Method 7740 W7040021-01
 Sample Spiked: Method 7841 W7040081-01

Analyte	Spike Added, ug/L	Sample Concentration, ug/L	MS Concentration, ug/L	MS Percent Recovery	Acceptability Limits, % ^a
Antimony	40.0	<10.0	15.1	37.8 ^b	75-125
Arsenic	40.0	<10.0	40.9	102	75-125
Beryllium	133	<5.0	118	88.8	80-120
Cadmium	168	<20	158	93.8	80-120
Chromium	333	<30	302	90.5	80-120
Copper	333	<25	310	93.0	80-120
Lead	20.0	23.9	39.4	77.5	75-125
Mercury	2.00	<0.50	1.66	83.0	75-125
Nickel	333	<40	292	87.5	80-120
Selenium	40.0	<10.0	41.7	104	75-125
Silver	66.7	<20	62.0	92.3	80-120
Thallium	20.0	<10.0	17.2	86.0	80-120
Zinc	333	<20	313	93.7	80-120

a Acceptability limits as per EPA Contract Laboratory Program.

b Value is outside of acceptability limits.

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0021
 Date Reported: 04-16-97

Table 4B
MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY
 Metals in Water

Analyte	Spike Added, ug/L	MSD Concentration, ug/L	MSD Percent Recovery	RPD %	Acceptability Limits, % ^a
					RPD
Antimony	40.0	11.5	28.8	27.1 ^b	20.0
Arsenic	40.0	43.0	108	5.00	20.0
Beryllium	133	110	82.7	7.09	20.0
Cadmium	168	143	85.0	9.87	20.0
Chromium	333	277	83.1	8.63	20.0
Copper	333	278	83.4	10.9	20.0
Lead	20.0	37.4	67.5	1.26	20.0
Mercury	2.00	1.42	71.0	15.6	20.0
Nickel	333	270	81.1	7.59	20.0
Selenium	40.0	40.6	102	2.67	20.0
Silver	66.7	55.0	83.2	10.4	20.0
Thallium	20.0	17.7	88.5	2.86	20.0
Zinc	333	284	85.2	9.57	20.0

a Acceptability limits as per EPA Contract Laboratory Program.

b Value is outside of acceptability limits.

GTEL Wichita, KS
 W7040021.MTW : 5
 Reissued Report

Project ID (Number): 1315-269
Project ID (Name): OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0021
Date Reported: 04-16-97

Table 5
LABORATORY CONTROL SAMPLE RESULTS
Metals in Water

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	39.3	98.2	75-125
Arsenic	40.0	43.1	108	75-125
Beryllium	800	797	99.6	80-120
Cadmium	1010	943	93.4	80-120
Chromium	2000	1960	98.0	80-120
Copper	2000	1930	96.5	80-120
Lead	20.0	20.7	104	75-125
Mercury	2.00	1.80	90.0	75-125
Nickel	2000	1940	97.0	80-120
Selenium	40.0	39.7	99.2	75-125
Silver	400	368	92.0	80-120
Thallium	20.0	21.0	105	75-125
Zinc	2000	1880	94.0	80-120

a Acceptability limits established by laboratory practice

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0021
 Date Reported: 04-16-97

Table 6
LABORATORY CONTROL SAMPLE RESULTS
Metals in Water

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	37.6	94.0	36.2	90.5	80-120
Arsenic	40.0	43.5	109	47.1	118	80-120
Beryllium	2000	2060	103	2090	104	90-110
Cadmium	2500	2660	106	2700	108	90-110
Chromium	5000	5280	106	5390	108	90-110
Copper	5000	4980	99.5	5120	102	90-110
Lead	20.0	22.2	111	21.8	109	80-120
Mercury	4.00	4.08	102	4.17	104	80-120
Nickel	5000	5345	107	5434	109	90-110
Selenium	40.0	39.2	98.0	42.4	106	80-120
Silver	1000	1020	102	1050	105	90-110
Thallium	20.0	19.6	98.0	18.6	93.0	80-120
Zinc	5000	5300	106	5360	107	90-110

a Acceptability limits established by laboratory practice

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0021
 Date Reported: 04-16-97

Table 6
LABORATORY CONTROL SAMPLE RESULTS
Metals in Water

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	39.0	97.5	—	—	80-120
Arsenic	40.0	45.1	113	—	—	80-120
Beryllium	2000	2100	105	—	—	90-110
Cadmium	2500	2740	110	—	—	90-110
Chromium	5000	5500	110	—	—	90-110
Copper	5000	5210	104	—	—	90-110
Lead	20.0	22.4	112	22.2	111	80-120
Mercury	4.00	4.18	105	4.24	106	80-120
Nickel	5000	5500	110	—	—	90-110
Selenium	40.0	46.4	116	—	—	80-120
Silver	1000	1070	107	—	—	90-110
Thallium	20.0	20.4	102	—	—	80-120
Zinc	5000	5440	109	—	—	90-110

a Acceptability limits established by laboratory practice

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC01OTC01

Login Number: W7040021

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below

Matrix: Solids

NEI/GTEL Sample Number	W7040021-06	W7040021-07	W7040021-08	W7040021-09
Client ID	SD-01	SD-02	SD-03	MS/MSD-SD
Date Sampled	04/01/97	04/01/97	04/01/97	04/01/97
Date Prepared	04/03/97	04/03/97	04/03/97	04/03/97
Date Analyzed	04/03/97	04/03/97	04/03/97	04/03/97
Dilution Factor	1.00	1.00	1.00	1.00
EPA 6010A	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 6010A	Date Analyzed	04/07/97	04/07/97	04/07/97
EPA 6010A	Dilution Factor	1.00	1.00	1.00
EPA 7471A	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7471A	Date Analyzed	04/07/97	04/07/97	04/07/97
EPA 7471A	Dilution Factor	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:Wet Weight
Inorganics (MT, WC)			
Antimony	EPA 6010A	20. mg/kg	< 20. < 20. < 20. < 20.
Arsenic	EPA 6010A	40. mg/kg	< 40. < 40. < 40. < 40.
Beryllium	EPA 6010A	0.50 mg/kg	< 0.50 < 0.50 < 0.50 < 0.50
Cadmium	EPA 6010A	2.0 mg/kg	< 2.0 < 2.0 < 2.0 < 2.0
Chromium	EPA 6010A	3.0 mg/kg	4.2 3.5 4.0 4.3
Copper	EPA 6010A	2.5 mg/kg	8.8 5.5 6.8 7.2
Lead	EPA 6010A	7.0 mg/kg	11. < 7.0 < 7.0 7.3
Mercury	EPA 7471A	0.25 mg/kg	< 0.25 < 0.25 < 0.25 < 0.25
Nickel	EPA 6010A	4.0 mg/kg	6.3 < 4.0 4.6 4.5
Selenium	EPA 6010A	20. mg/kg	< 20. < 20. < 20. < 20.
Silver	EPA 6010A	2.0 mg/kg	< 2.0 < 2.0 < 2.0 < 2.0
Thallium	EPA 6010A	20. mg/kg	< 20. < 20. < 20. < 20.
Zinc	EPA 6010A	2.0 mg/kg	26. 22. 21. 32.
Percent Solids	--	%	47.9 52.8 59.7 40.5

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A:

Digestion by EPA Method 3050A.

EPA 6010A, EPA 7471A:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 2.

Project Number: 1315-269
Project ID Name: OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0021
Date Reported: 04-16-97

QA NONCONFORMANCE SUMMARY

Metals in Soil

1.0 Sample Handling

1.1 Sample handling and holding time criteria were not met for zero samples.

2.0 Initial Calibration Verification

2.1 The validity for the calibration verification was exceeded for zero samples as shown in Table 2.

3.0 Method Blanks

3.1 Zero target elements were found in the method blank as shown in Table 3.

4.0 Matrix Spike (MS) Accuracy

4.1 The recovery limits were exceeded in the matrix spike sample for zero elements as shown in Table 4A.

5.0 Sample Duplicate Precision

5.1 The maximum percent difference (RPD) was exceeded for zero elements in the matrix spike and matrix spike duplicate samples as shown in Table 4A and 4B.

6.0 Laboratory Control Sample

6.1 The recovery limits were not met for zero elements for the laboratory control samples as shown in Table 5.

Project Number: 1315-269
Project ID Name: OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0021
Date Reported: 04-16-97

Table 2
INITIAL CALIBRATION VERIFICATION QC CHECK SAMPLE REPORT
Metals in Soil

Analyte	Expected Result, mg/L	Observed Result, mg/L	Recovery, %	Acceptability Limits, % ^a
Antimony	1.00	1.01	101	90-110
Arsenic	1.00	1.03	103	90-110
Beryllium	1.00	1.01	101	90-110
Cadmium	1.00	1.03	103	90-110
Chromium	1.00	1.02	102	90-110
Copper	1.00	1.01	101	90-110
Lead	1.00	1.02	102	90-110
Mercury	0.00400	0.00408	102	90-110
Nickel	1.00	1.05	105	90-110
Selenium	1.00	0.990	99.0	90-110
Silver	0.500	0.524	105	90-110
Thallium	1.00	0.986	98.6	90-110
Zinc	1.00	1.04	104	90-110

a Acceptability limits as per EPA Contract Laboratory Program

Project Number: 1315-269
Project ID Name: OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0021
Date Reported: 04-16-97

Table 3
BLANK REPORT
Metals in Soil

Analyte	Initial Calibration Blank, mg/L	Preparation Blank, mg/Kg
Antimony	<0.20	<20
Arsenic	<0.20	<20
Beryllium	<0.0050	<0.50
Cadmium	<0.20	<2.0
Chromium	<0.030	<3.0
Copper	<0.025	<2.5
Lead	<0.070	<7.0
Mercury	<0.0025	<0.25
Nickel	<0.040	<4.0
Selenium	<0.20	<20
Silver	<0.020	<2.0
Thallium	<0.20	<20
Zinc	<0.020	<2.0

<# Not detected at the indicated detection limit (#)

Project Number: 1315-269
 Project ID Name: OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0021
 Date Reported: 04-16-97

Table 4A
 MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY
 Metals in Soil

Sample Spiked: Method 6010A W7040021-06
 Sample Spiked: Method 7471A W7040021-06

Analyte	Spike Added, mg/Kg	Sample Concentration, mg/Kg	MS Concentration, mg/Kg	MS Percent Recovery	Acceptability Limits, % ^a
Antimony	167	<20	143	85.6	80-120
Arsenic	167	<40	152	91.3	80-120
Beryllium	66.7	<0.50	59.9	89.9	80-120
Cadmium	84.2	<2.00	72.7	86.4	80-120
Chromium	167	4.20	151	87.9	80-120
Copper	167	8.82	153	86.7	80-120
Lead	167	10.9	157	87.6	80-120
Mercury	0.308	<0.0025	0.269	87.4	75-125
Nickel	167	6.26	151	87.0	80-120
Selenium	167	<20.0	151	90.9	80-120
Silver	33.3	<2.00	28.0	84.1	80-120
Thallium	167	<20.0	142	85.0	80-120
Zinc	167	26.5	170	85.9	80-120

a Acceptability limits as per EPA Contract Laboratory Program.

NA Not applicable; initial sample concentration greater than four times the spike amount.

Project Number: 1315-269
 Project ID Name: OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0021
 Date Reported: 04-16-97

Table 4B
MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY
 Metals in Soil

Analyte	Spike Added, mg/Kg	MSD Concentration, mg/Kg	MSD Percent Recovery	RPD %	Acceptability Limits, % ^a
					RPD
Antimony	189	163	86.4	0.956	20.0
Arsenic	189	171	90.4	1.06	20.0
Beryllium	75.5	67.9	90.0	0.167	20.0
Cadmium	95.3	82.5	86.5	0.197	20.0
Chromium	189	171	88.6	0.822	20.0
Copper	189	173	87.2	0.483	20.0
Lead	189	179	88.9	1.43	20.0
Mercury	0.328	0.301	91.8	4.89	20.0
Nickel	189	173	88.6	1.84	20.0
Selenium	189	167	88.5	2.58	20.0
Silver	37.7	31.7	83.9	0.265	20.0
Thallium	189	156	82.7	2.81	20.0
Zinc	189	193	88.1	2.60	20.0

a Acceptability limits as per EPA Contract Laboratory Program.

NA Not applicable; initial sample concentration greater than four times the spike amount.

Project Number: 1315-269
Project ID Name: OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0021
Date Reported: 04-16-97

Table 5
LABORATORY CONTROL SAMPLE RESULTS
Metals in Soil

Analyte	Expected Result, mg/Kg	Observed Result, mg/Kg	Recovery, %	Acceptability Limits, % ^a
Antimony	200	199	99.5	80-120
Arsenic	200	205	102.0	80-120
Beryllium	80.0	81.2	102.0	80-120
Cadmium	101	99.1	98.1	80-120
Chromium	200	205	102.0	80-120
Copper	200	195	97.5	80-120
Lead	200	203	102.0	80-120
Mercury	0.333	0.305	91.6	75-125
Nickel	200	205	102.0	80-120
Selenium	200	199	99.5	80-120
Silver	40.0	37.7	94.2	80-120
Thallium	200	196	98.0	80-120
Zinc	200	198	99.0	80-120

a Acceptability limits established by laboratory practice

Project Number: 1315-269
 Project ID Name: OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0021
 Date Reported: 04-16-97

Table 6
 Continuing Calibration Verification QC Check Sample Report
 Metals in Soil

Analyte	Expected Result, mg/L	Observed Result, mg/L	Recovery, %	Observed Result, mg/L	Recovery, %	Acceptability Limits, % ^a
Antimony	5.00	5.16	103	5.27	106	90-110
Arsenic	5.00	5.43	109	5.51	110	80-120
Beryllium	2.00	2.11	106	2.19	109	90-110
Cadmium	2.50	2.66	106	2.70	108	90-110
Chromium	5.00	5.29	106	5.44	109	90-110
Copper	5.00	4.96	99.3	5.15	103	90-110
Lead	5.00	5.40	108	5.48	109	80-120
Mercury	0.00400	0.00424	106	0.00409	102	80-120
Nickel	5.00	5.40	108	5.50	110	90-110
Selenium	5.00	5.37	107	5.52	110	80-120
Silver	1.00	1.01	101	1.04	104	90-110
Thallium	5.00	5.24	105	5.41	108	80-120
Zinc	5.00	5.34	107	5.46	109	90-110

a Acceptability limits established by laboratory practice.



4211 MAY STREET
WICHITA, KS 67209
(316) 945-2624
(800) 633-7936

Company Name: **Optech**
Company Address: **4100 NW Loop 410, #270
San Antonio, TX 78227**
Project Manager: **K. Pritchett**
Client Project ID: **(#) 1315-269**
Phone #: **210 731-0000**
FAX #: **210 731-0008**
Site Location: **CANTAL H.A.P.O.N.C**

Sampler Name (Print): **Joe Byrd, Jr.**
(NAME)

Field Sample ID	GTEL Lab # (Lab Use only)	# CONTAINERS	Matrix			Method Preserved				Sampling	
			WATER	AIR	SLUDGE	OTHER PRODUCT	HCl	HNO3	H2SO4	ICB	OTHER (Specify)
SW-01		3	✓				✓				
SW-01	1	1	✓					✓			
SW-03	2	3	✓				✓				
SW-03	0	1	✓				✓				
SW-02	0	3	✓				✓				
SW-02	0	1	✓				✓				
MS/MSD	0	3	✓				✓				
MS/MSD	0	1	✓				✓				
SEMI-QUANT	3	3	✓				✓				
QUANT		1	✓				✓				

Special Handling
Priority (24 hr) ☐ GTEL Contact ☐
Expedited (48 hr) ☐ Quote/Contract # ☐
7 Business Days ☐ Confirmation # ☐
Other ☐ P.O. # ☐

QA/QC Level **3**
Blank ☐ CLPD ☐ Other ☒

Refiniquished by Sampler: **[Signature]**
Refiniquished by: **[Signature]**
Refiniquished by: **[Signature]**

CHAIN-OF-CUSTODY RECORD
AND ANALYSIS REQUEST

1 of 2 50584

ANALYSIS REQUEST

Oil and Grease 413.1 □ 413.2 □ SM-403	TPHM 418.1 □ SM 503	EPA 824.2 □ 803.1 □ EPA 802.2	EPA 801 □ EPA 801D	EPA 802 □ EPA 802B	EPA 808 □ 8080 □ PCB only	EPA 824/PL □ 8240/TAL □ NBS (+25) □ 8260	EPA 810 □ 8310	EP TOX Metals □ VOCs □ Herbicides □	TCLP Metals □ VOCs □ Semi-VOCs □ Pesticides □	EPA Metals - Priority Pollutants □ TAL □ RCRA □	CAM Metals TLCO □ STLO □	Lead 239.2 □ 200.7 □ 7420 □ 7421 □ 8010	Organic Lead	Conductivity □ Flash Point □ Reactivity
Hydrocarbons GC/FID Gas □ Diesel □ Screen	Hydrocarbon Profile (SIMCIS) □	BTEX 802 □ 8020 □ with MTBE	Hydrocarbons GC/FID Gas □ Diesel □ Screen	Hydrocarbons GC/FID Gas □ Diesel □ Screen	Hydrocarbons GC/FID Gas □ Diesel □ Screen	Hydrocarbons GC/FID Gas □ Diesel □ Screen	Hydrocarbons GC/FID Gas □ Diesel □ Screen	Hydrocarbons GC/FID Gas □ Diesel □ Screen	Hydrocarbons GC/FID Gas □ Diesel □ Screen	Hydrocarbons GC/FID Gas □ Diesel □ Screen	Hydrocarbons GC/FID Gas □ Diesel □ Screen	Hydrocarbons GC/FID Gas □ Diesel □ Screen	Hydrocarbons GC/FID Gas □ Diesel □ Screen	Hydrocarbons GC/FID Gas □ Diesel □ Screen

REMARKS: **FEDEX AIRBILL: m3/msd - for SW-02 N 4/13/97**
7970018803 EPA ppm - SW 46 -
N 4/13/97 6010/1000
Sealed

Lab Use Only Lot #: **AMENDED CUC**
Work Order #: **7970018803**
Storage Location

Received by: **[Signature]** Date: **4/13/97** Time: **1430**
Received by: **[Signature]** Date: **4/13/97** Time: **1430**
Received by Laboratory: **[Signature]** Date: **4/13/97** Time: **1430**

CUSTODY RECORD
Date: **4/13/97** Time: **1430**
Date: **4/13/97** Time: **1430**
Date: **4/13/97** Time: **1430**



4211 MAY STREET
WICHITA, KS 67209
(316) 945-2624
(800) 633-7936

CHAIN-OF-CUSTODY RECORD
AND ANALYSIS REQUEST

50584

1 of 2

Company Name: **OPTech**
Company Address: **4100 NW Loop 410, #270 SAN ANTONIO, TX 78229**
Project Manager: **K. Rittchett**
Phone #: **210 731-0000**
FAX #: **210 731-0008**
Site Location: **CENTRAL AIRPORT**
Client Project ID: **(#) 135-269**

I attest that the proper field sampling procedures were used during the collection of these samples.

Field Sample ID	GTEL Lab # (Lab Use only)	# CONTAINERS	Matrix			Method Preserved			Sampling	
			WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	DATE	TIME
SW-01	01	3	✓						4/14/97	1215
SW-01	01	1	✓						"	1215
SW-03	03	3	✓						"	1220
SW-03	03	1	✓						"	1220
SW-02	02	3	✓						"	1250
SW-02	02	1	✓						"	1250
MS/MSD	01	3	✓						"	1255
MS/MSD	01	1	✓						"	1255
MS/MSD	03	3	✓						"	1205
MS/MSD	03	1	✓						"	1205

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS

Special Handling

Priority (24 hr) ☐ GTEL Contact ☐
Expedited (48 hr) ☐ Quote/Contract # ☐
7 Business Days ☐ Confirmation # ☐
Other ☐ P.O. # ☐

Blue ☐ CLP ☐ Other ☒ **QA/QC Level 3**

CUSTODY RECORD

Relinquished by Sampler: *[Signature]*
Relinquished by: *[Signature]*
Relinquished by: *[Signature]*

BTX/Gas Hydrocarbons PID/FID <input type="checkbox"/> with MTBE <input type="checkbox"/>	BTX 602 <input type="checkbox"/> 8020 <input type="checkbox"/> with MTBE <input type="checkbox"/>	Hydrocarbons GC/FID Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Screen <input type="checkbox"/>	Hydrocarbon Profile (SIMDIS) <input type="checkbox"/>	Oil and Grease 413.1 <input type="checkbox"/> 413.2 <input type="checkbox"/> SM-503 <input type="checkbox"/>	TPH/IR 418.1 <input type="checkbox"/> SM 503 <input type="checkbox"/>	EDB by 504 <input type="checkbox"/> DBCP by 504 <input type="checkbox"/>	EPA 524.2 <input type="checkbox"/> 503.1 <input type="checkbox"/> EPA 502.2 <input type="checkbox"/>	EPA 601 <input type="checkbox"/> EPA 8010 <input type="checkbox"/>	EPA 602 <input type="checkbox"/> EPA 8020 <input type="checkbox"/>	EPA 608 <input type="checkbox"/> 8080 <input type="checkbox"/> PCB only <input type="checkbox"/>	EPA 824/PPL <input type="checkbox"/> 8240/TAL <input type="checkbox"/> NBS (+15) <input type="checkbox"/> 8260 <input type="checkbox"/>	EPA 825/PPL <input type="checkbox"/> 8270/TAL <input type="checkbox"/> NBS (+25) <input type="checkbox"/>	EPA 810 <input type="checkbox"/> 8310 <input type="checkbox"/>	EP TOX Metals <input type="checkbox"/> Pesticides <input type="checkbox"/> Herbicides <input type="checkbox"/>	TCLP Metals <input type="checkbox"/> VOA <input type="checkbox"/> Semi-VOA <input type="checkbox"/> Pest <input type="checkbox"/> Herb <input type="checkbox"/>	EPA Metals - Priority Pollutant <input type="checkbox"/> TAL <input type="checkbox"/> RCRA <input type="checkbox"/>	CAM Metals TLLC <input type="checkbox"/> STLC <input type="checkbox"/>	Lead 239.2 <input type="checkbox"/> 200.7 <input type="checkbox"/> 7420 <input type="checkbox"/> 7421 <input type="checkbox"/> 6010 <input checked="" type="checkbox"/>	Organic Lead <input type="checkbox"/>	Corrosivity <input type="checkbox"/> Flash Point <input type="checkbox"/> Reactivity <input type="checkbox"/>
--	---	--	---	--	---	--	--	--	--	--	---	---	--	--	---	---	--	---	---------------------------------------	---

REMARKS: **FEDEX AIRBILL: 7970018803**

Storage Location

Lab Use Only Lot #:

Work Order #:

Received by: *[Signature]* **Date:** 4/14/97 **Time:** 1430

Received by: *[Signature]* **Date:** 4/14/97 **Time:** 0810

Received by Laboratory: *[Signature]* **Waybill #**



4211 MAY STREET
WICHITA, KS 67209
(316) 945-2624
(800) 633-7936

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

2 of 2 50583

Company Name:

OPTech

Company Address:

4100 NW Loop 410, #230

CAPITAL AIRPORT

Project Manager:

K. Pritchett

I attest that the proper field sampling procedures were used during the collection of these samples.

Sampler Name (Print):

Joe Byrd, Jr

(NAME)

Client Project ID: (#) 1315-769

Phone #: 310 731-0000

FAX #: 310 731-0008

Site Location:

CAPITAL AIRPORT

ANALYSIS REQUEST

NUMBER:

OPTech		FAX #: 210 731-0008	
Company Address:		Site Location:	
4100 NW Loop 410, #230		CAPITAL Airport	
SAN Antonio TX 78229			
Project Manager:		Client Project ID: (#) 1315-769	
K. Pritchett		(NAME)	
I attest that the proper field sampling procedures were used during the collection of these samples.		Sampler Name (Print):	
		Joe Byrd, Jr	

Field Sample ID	GTEL Lab # (Lab Use) only	# CONTAINERS	Matrix				Method Preserved				Sampling				
			WATER	SOIL (See 1)	AIR	SLUDGE	PRODUCT	OTHER	HCl	HNO3	H2SO4	ICE	UNPREPARED	OTHER (Specify)	DATE	TIME
SD-01	06	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	4/19/97	1225
SD-01	07	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	"	1225
SD-02	07	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	"	1300
SD-02	08	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	"	1300
SD-03	08	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	"	1230
SD-03	09	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	"	1230
MS/MSD-SD	09	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	"	1305
MS/MSD-SD	31	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	"	1305

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TAT Priority (24 hr) <input type="checkbox"/> Expedited (48 hr) <input type="checkbox"/> 7 Business Days <input type="checkbox"/> Other <input checked="" type="checkbox"/> Business Days		Special Handling GTEL Contact _____ Quote/Contract # _____ Confirmation # _____ P.O. # _____		SPECIAL DETECTION LIMITS <i>As per spec</i>		REMARKS: FEDEX AIR BILL: 7970018803	
Blue <input type="checkbox"/> CLP <input type="checkbox"/> Other <input checked="" type="checkbox"/>				QA/QC Level 3		Lab Use Only Lot #: _____	
Relinquished by Sampler: <i>Joe Byrd, Jr</i>				Work Order #: _____		Storage Location	
Relinquished by: _____				Date: 4/19/97		Received by: _____	
Relinquished by: _____				Date: 4/19/97		Received by: _____	
Relinquished by: _____				Date: 4/19/97		Received by Laboratory: _____	



Midwest Region

4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

April 17, 1997

Kathryn Pritchett
Operational Technologies Corp.
4100 N.W. Loop 410
Suite 230
San Antonio, TX 78229

RE: NEI/GTEL Client ID:	OTC010TC01
Login Number:	W7040081
Project ID (number):	1315-269
Project ID (name):	OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Dear Kathryn Pritchett:

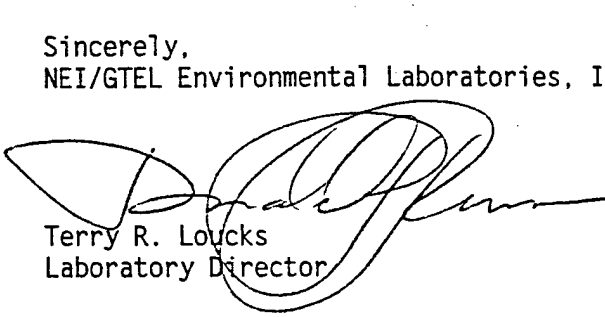
Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 04/04/97 under Chain-of-Custody Number(s) 49103.

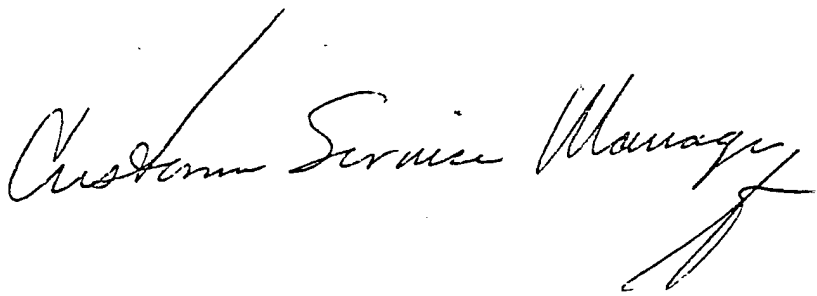
A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the State of Kansas under Certification Numbers E-10103.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
NEI/GTEL Environmental Laboratories, Inc.


Terry R. Loucks
Laboratory Director


Customer Service Manager

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC01OTC01

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below

Matrix: Aqueous

NEI/GTEL Sample Number	W7040081-01	W7040081-02	W7040081-03	W7040081-04
Client ID	MW-201B	MW-202B	MW-202(FILTERED)	MW-202(UNFILTERED)
Date Sampled	04/03/97	04/03/97	04/03/97	04/03/97
Date Prepared	04/08/97	04/08/97	04/08/97	04/08/97
Date Analyzed	04/08/97	04/08/97	04/08/97	04/08/97
Dilution Factor	1.00	1.00	1.00	1.00
EPA 6010A				
EPA 6010A				
EPA 6010A				
Date Prepared	04/07/97	04/07/97	04/07/97	04/07/97
Date Analyzed	04/08/97	04/08/97	04/08/97	04/08/97
Dilution Factor	1.00	1.00	1.00	1.00
EPA 7041				
EPA 7041				
EPA 7041				
Date Prepared	04/09/97	04/09/97	04/09/97	04/09/97
Date Analyzed	04/10/97	04/10/97	04/10/97	04/10/97
Dilution Factor	1.00	1.00	1.00	1.00
EPA 7060A				
EPA 7060A				
EPA 7060A				
Date Prepared	04/07/97	04/07/97	04/07/97	04/07/97
Date Analyzed	04/10/97	04/07/97	04/07/97	04/07/97
Dilution Factor	1.00	1.00	1.00	1.00
EPA 7421				
EPA 7421				
EPA 7421				
Date Prepared	04/07/97	04/07/97	04/07/97	04/07/97
Date Analyzed	04/07/97	04/07/97	04/07/97	04/07/97
Dilution Factor	1.00	1.00	1.00	1.00
EPA 7470A				
EPA 7470A				
EPA 7470A				
Date Prepared	04/09/97	04/09/97	04/09/97	04/09/97
Date Analyzed	04/14/97	04/14/97	04/14/97	04/14/97
Dilution Factor	1.00	1.00	1.00	1.00
EPA 7740				
EPA 7740				
EPA 7740				
Date Prepared	04/07/97	04/07/97	04/07/97	04/07/97
Date Analyzed	04/09/97	04/09/97	04/09/97	04/09/97
Dilution Factor	1.00	1.00	1.00	1.00
EPA 7841				
EPA 7841				
EPA 7841				

Analyte	Reporting Limit	Units	Concentration:
Inorganics (MT. WC)			
Antimony	EPA 7041	10. ug/L	< 10.
Arsenic	EPA 7060A	10. ug/L	< 10.
Beryllium	EPA 6010A	5.0 ug/L	< 5.0
Cadmium	EPA 6010A	20. ug/L	< 20.
Chromium	EPA 6010A	30. ug/L	< 30.
Copper	EPA 6010A	25. ug/L	< 25.
Lead	EPA 7421	4.0 ug/L	< 4.0
Manganese	EPA 6010A	15. ug/L	< 15.
Mercury	EPA 7470A	0.50 ug/L	< 0.50
Nickel	EPA 6010A	40. ug/L	< 40.
Selenium	EPA 7740	10. ug/L	< 10.
Silver	EPA 6010A	20. ug/L	< 20.
Thallium	EPA 7841	10. ug/L	< 10.
Zinc	EPA 6010A	20. ug/L	< 20.

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:
NEI/GTEL Wichita, KS
W7040081

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below

Matrix: Aqueous

NEI/GTEL Sample Number	W7040081-01	W7040081-02	W7040081-03	W7040081-04
Client ID	MW-201B	MW-202B	MW-202(FILTERED)	MW-202(UNFILTERED)
Date Sampled	04/03/97	04/03/97	04/03/97	04/03/97
Date Prepared	04/08/97	04/08/97	04/08/97	04/08/97
Date Analyzed	04/08/97	04/08/97	04/08/97	04/08/97
Dilution Factor	1.00	1.00	1.00	1.00
EPA 6010A				
Date Prepared	04/07/97	04/07/97	04/07/97	04/07/97
Date Analyzed	04/08/97	04/08/97	04/08/97	04/08/97
Dilution Factor	1.00	1.00	1.00	1.00
EPA 7041				
Date Prepared	04/09/97	04/09/97	04/09/97	04/09/97
Date Analyzed	04/10/97	04/10/97	04/10/97	04/10/97
Dilution Factor	1.00	1.00	1.00	1.00
EPA 7060A				
Date Prepared	04/07/97	04/07/97	04/07/97	04/07/97
Date Analyzed	04/07/97	04/07/97	04/07/97	04/07/97
Dilution Factor	1.00	1.00	1.00	1.00
EPA 7421				
Date Prepared	04/09/97	04/09/97	04/09/97	04/09/97
Date Analyzed	04/14/97	04/14/97	04/14/97	04/14/97
Dilution Factor	1.00	1.00	1.00	1.00
EPA 7470A				
Date Prepared	04/07/97	04/07/97	04/07/97	04/07/97
Date Analyzed	04/09/97	04/09/97	04/09/97	04/09/97
Dilution Factor	1.00	1.00	1.00	1.00
EPA 7740				
Date Prepared	04/07/97	04/07/97	04/07/97	04/07/97
Date Analyzed	04/09/97	04/09/97	04/09/97	04/09/97
Dilution Factor	1.00	1.00	1.00	1.00
EPA 7841				
Date Prepared	04/07/97	04/07/97	04/07/97	04/07/97
Date Analyzed	04/09/97	04/09/97	04/09/97	04/09/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

Digestion for Total Metals by EPA Method 3010A.

Digestion for Total Metals by EPA Method 3010A.

EPA 7421, EPA 7841:

Digestion for Total Metals by EPA Method 3020A.

EPA 7060A, EPA 7740:

Digestion by EPA Method 7060.

EPA 7470A:

Digestion is method specific.

EPA 6010A, EPA 7041, EPA 7060A, EPA 7421, EPA 7470A, EPA 7740, EPA 7841:

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SW-846. Third Edition including Update 2.

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below

Matrix: Aqueous

NEI/GTEL Sample Number	W7040081-05	W7040081-06	W7040081-07	--
Client ID	MW-201	MW-203	MW-202A	--
Date Sampled	04/03/97	04/03/97	04/03/97	--
EPA 6010A Date Prepared	04/08/97	04/08/97	04/08/97	--
EPA 6010A Date Analyzed	04/08/97	04/08/97	04/08/97	--
EPA 6010A Dilution Factor	1.00	1.00	1.00	--
EPA 7041 Date Prepared	04/07/97	04/07/97	04/07/97	--
EPA 7041 Date Analyzed	04/08/97	04/08/97	04/08/97	--
EPA 7041 Dilution Factor	1.00	1.00	1.00	--
EPA 7060A Date Prepared	04/09/97	04/09/97	04/09/97	--
EPA 7060A Date Analyzed	04/10/97	04/10/97	04/10/97	--
EPA 7060A Dilution Factor	1.00	1.00	1.00	--
EPA 7421 Date Prepared	04/07/97	04/07/97	04/07/97	--
EPA 7421 Date Analyzed	04/07/97	04/07/97	04/07/97	--
EPA 7421 Dilution Factor	1.00	1.00	1.00	--
EPA 7470A Date Prepared	04/07/97	04/07/97	04/07/97	--
EPA 7470A Date Analyzed	04/07/97	04/07/97	04/07/97	--
EPA 7470A Dilution Factor	1.00	1.00	1.00	--
EPA 7740 Date Prepared	04/09/97	04/09/97	04/09/97	--
EPA 7740 Date Analyzed	04/14/97	04/14/97	04/14/97	--
EPA 7740 Dilution Factor	1.00	1.00	1.00	--
EPA 7841 Date Prepared	04/07/97	04/07/97	04/07/97	--
EPA 7841 Date Analyzed	04/09/97	04/09/97	04/09/97	--
EPA 7841 Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting Limit	Units	Concentration:	--
Antimony	EPA 7041 10.	ug/L	< 10.	--
Arsenic	EPA 7060A 10.	ug/L	< 10.	--
Beryllium	EPA 6010A 5.0	ug/L	< 5.0	--
Cadmium	EPA 6010A 20.	ug/L	< 20.	--
Chromium	EPA 6010A 30.	ug/L	< 30.	--
Copper	EPA 6010A 25.	ug/L	< 25.	--
Lead	EPA 7421 4.0	ug/L	15.	--
Manganese	EPA 6010A 15.	ug/l	160	--
Mercury	EPA 7470A 0.50	ug/L	< 0.50	--
Nickel	EPA 6010A 40.	ug/L	< 40.	--
Selenium	EPA 7740 10.	ug/L	< 10.	--
Silver	EPA 6010A 20.	ug/L	< 20.	--
Thallium	EPA 7841 10.	ug/L	< 10.	--
Zinc	EPA 6010A 20.	ug/L	30.	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W7040081

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below

Matrix: Aqueous

NEI/GTEL Sample Number	W7040081-05	W7040081-06	W7040081-07	--
Client ID	MW-201	MW-203	MW-202A	--
Date Sampled	04/03/97	04/03/97	04/03/97	--
EPA 6010A Date Prepared	04/08/97	04/08/97	04/08/97	--
EPA 6010A Date Analyzed	04/08/97	04/08/97	04/08/97	--
EPA 6010A Dilution Factor	1.00	1.00	1.00	--
EPA 7041 Date Prepared	04/07/97	04/07/97	04/07/97	--
EPA 7041 Date Analyzed	04/08/97	04/08/97	04/08/97	--
EPA 7041 Dilution Factor	1.00	1.00	1.00	--
EPA 7060A Date Prepared	04/09/97	04/09/97	04/09/97	--
EPA 7060A Date Analyzed	04/10/97	04/10/97	04/10/97	--
EPA 7060A Dilution Factor	1.00	1.00	1.00	--
EPA 7421 Date Prepared	04/07/97	04/07/97	04/07/97	--
EPA 7421 Date Analyzed	04/07/97	04/07/97	04/07/97	--
EPA 7421 Dilution Factor	1.00	1.00	1.00	--
EPA 7470A Date Prepared	04/07/97	04/07/97	04/07/97	--
EPA 7470A Date Analyzed	04/07/97	04/07/97	04/07/97	--
EPA 7470A Dilution Factor	1.00	1.00	1.00	--
EPA 7740 Date Prepared	04/09/97	04/09/97	04/09/97	--
EPA 7740 Date Analyzed	04/14/97	04/14/97	04/14/97	--
EPA 7740 Dilution Factor	1.00	1.00	1.00	--
EPA 7841 Date Prepared	04/07/97	04/07/97	04/07/97	--
EPA 7841 Date Analyzed	04/09/97	04/09/97	04/09/97	--
EPA 7841 Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting Limit	Units	Concentration:
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EPA 7421, EPA 7841:

Digestion for Total Metals by EPA Method 3020A.

Digestion for Total Metals by EPA Method 3020A.

EPA 7060A, EPA 7740:

Digestion by EPA Method 7060.

EPA 7470A:

Digestion is method specific.

EPA 6010A, EPA 7041, EPA 7060A, EPA 7421, EPA 7470A, EPA 7740, EPA 7841:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 2.

Project ID (Number): 1315-269
Project ID (Name): OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0081
Date Reported: 04-17-97

QA NONCONFORMANCE SUMMARY

1.0 Sample Handling

- 1.1 Sample handling and holding time criteria were not met for zero samples.

2.0 Initial Calibration Verification

- 2.1 The validity for the calibration verification was exceeded for zero samples as shown in Table 2.

3.0 Method Blanks

- 3.1 Zero target elements were found in the method blank as shown in Table 3.

4.0 Matrix Spike (MS) Accuracy

- 4.1 The recovery limits were exceeded in one element for the matrix spike.
4.2 The recovery limits for the matrix spike and matrix spike duplicate were exceeded for antimony due to precipitation of the element in the presence of the sample matrix.

5.0 Sample Duplicate Precision

- 5.1 The maximum percent difference (RPD) was exceeded for one element in the matrix spike and matrix spike duplicate samples as shown in Tables 4A and 4B.
5.2 The maximum percent difference (RPD) was exceeded for antimony in the matrix spike and the matrix spike duplicate due to precipitation of the element in the sample matrix.

6.0 Laboratory Control Sample

- 6.1 The recovery limits were not met for zero elements for the laboratory control samples as shown in Table 5.

Project ID (Number): 1315-269
Project ID (Name): OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0081
Date Reported: 04-17-97

Table 2
INITIAL CALIBRATION VERIFICATION QC CHECK SAMPLE REPORT
Metals in Water^a

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	43.8	110	90-110
Arsenic	40.0	40.0	100	90-110
Beryllium	1000	1020	102	90-110
Cadmium	1000	1030	103	90-110
Chromium	1000	1020	102	90-110
Copper	1000	1020	102	90-110
Lead	20.0	20.7	104	90-110
Mercury	4.00	4.17	104	90-110
Nickel	1000	1040	104	90-110
Selenium	40.0	39.4	98.5	90-110
Silver	500	524	105	90-110
Thallium	20.0	20.2	101	90-110
Zinc	1000	1040	104	90-110

a Acceptability limits as per EPA Contract Laboratory Program

Project ID (Number): 1315-269
Project ID (Name): OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0081
Date Reported: 04-17-97

Table 3
BLANK REPORT
Metals in Water

Analyte	Initial Calibration Blank, ug/L	Preparation Blank, ug/L
Antimony	<10	<10
Arsenic	<10	<10
Beryllium	<5.0	<5.0
Cadmium	<20	<20
Chromium	<30	<30
Copper	<25	<25
Lead	<4.0	<4.0
Mercury	<0.50	<0.50
Nickel	<40	<40
Selenium	<10	<10
Silver	<20	<20
Thallium	<10	<10
Zinc	<20	<20

<# Not detected at the indicated detection limit (#)

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0081
 Date Reported: 04-17-97

Table 4A
MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY
 Metals in Water

Sample Spiked: Method 6010A W7040112-01
 Sample Spiked: Method 7041 W7040081-01
 Sample Spiked: Method 7060A W7040021-01
 Sample Spiked: Method 7421 W7040081-01
 Sample Spiked: Method 7470A W7040021-01
 Sample Spiked: Method 7740 W7040021-01
 Sample Spiked: Method 7841 W7040081-01

Analyte	Spike Added, ug/L	Sample Concentration, ug/L	MS Concentration, ug/L	MS Percent Recovery	Acceptability Limits, % ^a
Antimony	40.0	<10.0	15.1	37.8 ^b	75-125
Arsenic	40.0	<10.0	40.9	102	75-125
Beryllium	133	<5.0	118	88.8	80-120
Cadmium	168	<20	158	93.8	80-120
Chromium	333	<30	302	90.5	80-120
Copper	333	<25	310	93.0	80-120
Lead	20.0	23.9	39.4	77.5	75-125
Mercury	2.00	<0.50	1.66	83.0	75-125
Nickel	333	<40	292	87.5	80-120
Selenium	40.0	<10.0	41.7	104	75-125
Silver	66.7	<20	62.0	92.3	80-120
Thallium	20.0	<10.0	17.2	86.0	80-120
Zinc	333	<20	313	93.7	80-120

a Acceptability limits as per EPA Contract Laboratory Program.

b Value is outside of acceptability limits.

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0081
 Date Reported: 04-17-97

Table 4B
MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY
Metals in Water

Analyte	Spike Added, ug/L	MSD Concentration, ug/L	MSD Percent Recovery	RPD %	Acceptability Limits, % ^a
					RPD
Antimony	40.0	11.5	28.8	27.1 ^b	20.0
Arsenic	40.0	43.0	108	5.00	20.0
Beryllium	133	110	82.7	7.09	20.0
Cadmium	168	143	85.0	9.87	20.0
Chromium	333	277	83.1	8.63	20.0
Copper	333	278	83.4	10.9	20.0
Lead	20.0	37.4	67.5	1.26	20.0
Mercury	2.00	1.42	71.0	15.6	20.0
Nickel	333	270	81.1	7.59	20.0
Selenium	40.0	40.6	102	2.67	20.0
Silver	66.7	55.0	83.2	10.4	20.0
Thallium	20.0	17.7	88.5	2.86	20.0
Zinc	333	284	85.2	9.57	20.0

a Acceptability limits as per EPA Contract Laboratory Program.

b Value is outside of acceptability limits.

Project ID (Number): 1315-269
Project ID (Name): OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0081
Date Reported: 04-17-97

Table 5
LABORATORY CONTROL SAMPLE RESULTS
Metals in Water

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	39.3	98.2	75-125
Arsenic	40.0	43.1	108	75-125
Beryllium	800	797	99.6	80-120
Cadmium	1010	943	93.4	80-120
Chromium	2000	1960	98.0	80-120
Copper	2000	1930	96.5	80-120
Lead	20.0	20.7	104	75-125
Mercury	2.00	1.80	90.0	75-125
Nickel	2000	1940	97.0	80-120
Selenium	40.0	39.7	99.2	75-125
Silver	400	368	92.0	80-120
Thallium	20.0	21.0	105	75-125
Zinc	2000	1880	94.0	80-120

a Acceptability limits established by laboratory practice

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0081
 Date Reported: 04-17-97

Table 6
 LABORATORY CONTROL SAMPLE RESULTS
 Metals in Water

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	37.6	94.0	36.2	90.5	80-120
Arsenic	40.0	43.5	109	47.1	118	80-120
Beryllium	2000	2060	103	2090	104	90-110
Cadmium	2500	2660	106	2700	108	90-110
Chromium	5000	5280	106	5390	108	90-110
Copper	5000	4980	99.5	5120	102	90-110
Lead	20.0	22.2	111	21.8	109	80-120
Mercury	4.00	4.08	102	4.17	104	80-120
Nickel	5000	5345	107	5434	109	90-110
Selenium	40.0	39.2	98.0	42.4	106	80-120
Silver	1000	1020	102	1050	105	90-110
Thallium	20.0	19.6	98.0	18.6	93.0	80-120
Zinc	5000	5300	106	5360	107	90-110

a Acceptability limits established by laboratory practice

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0081
 Date Reported: 04-17-97

Table 6
LABORATORY CONTROL SAMPLE RESULTS
 Metals in Water

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	39.0	97.5	---	---	80-120
Arsenic	40.0	45.1	113	---	---	80-120
Beryllium	2000	2100	105	---	---	90-110
Cadmium	2500	2740	110	---	---	90-110
Chromium	5000	5500	110	---	---	90-110
Copper	5000	5210	104	---	---	90-110
Lead	20.0	22.4	112	22.2	111	80-120
Mercury	4.00	4.18	105	4.24	106	80-120
Nickel	5000	5500	110	---	---	90-110
Selenium	40.0	46.4	116	---	---	80-120
Silver	1000	1070	107	---	---	90-110
Thallium	20.0	20.4	102	---	---	80-120
Zinc	5000	5440	109	---	---	90-110

a Acceptability limits established by laboratory practice

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8010/8020

Matrix: Aqueous

NEI/GTEL Sample Number	W7040081-01	W7040081-02	W7040081-03	W7040081-05
Client ID	MW-201B	MW-202B	MW-202(FILTERED)	MW-201
Date Sampled	04/03/97	04/03/97	04/03/97	04/03/97
Date Analyzed	04/14/97	04/15/97	04/15/97	04/14/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units				
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0	50.	9.5	< 1.0
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	1.0	ug/L	< 1.0	< 1.0	1.6	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	1.8	< 1.0	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	19.	130	5.8	< 1.0
Chloroform	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	0.5	ug/L	< 0.5	0.9	0.6	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 1.0	3.1	< 1.0	< 1.0
Trichloroethene	1.0	ug/L	2.7	3.5	< 1.0	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:

NEI/GTEL Wichita, KS

W7040081

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8010/8020

Matrix: Aqueous

NEI/GTEL Sample Number	W7040081-01	W7040081-02	W7040081-03	W7040081-05
Client ID	MW-201B	MW-202B	MW-202(FILTERED)	MW-201
Date Sampled	04/03/97	04/03/97	04/03/97	04/03/97
Date Analyzed	04/14/97	04/15/97	04/15/97	04/14/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8010/8020

Matrix: Aqueous

NEI/GTEL Sample Number	W7040081-06	W7040081-07	--	--
Client ID	MW-203	MW-202A	--	--
Date Sampled	04/03/97	04/03/97	--	--
Date Analyzed	04/14/97	04/15/97	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:			
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	--	--
Chloromethane	2.0	ug/L	< 2.0	< 2.0	--	--
Vinyl Chloride	1.0	ug/L	< 1.0	55.	--	--
Bromomethane	2.0	ug/L	< 2.0	< 2.0	--	--
Chloroethane	1.0	ug/L	< 1.0	< 1.0	--	--
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	--	--
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	--	--
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	--	--
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	1.8	--	--
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	--	--
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	130	--	--
Chloroform	1.0	ug/L	< 1.0	< 1.0	--	--
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	--	--
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	--	--
Benzene	0.5	ug/L	< 0.5	1.0	--	--
1,2-Dichloroethane	1.0	ug/L	< 1.0	3.1	--	--
Trichloroethene	1.0	ug/L	< 1.0	3.7	--	--
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	--	--
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	--	--
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	--	--
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	--	--
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	--	--
Toluene	1.0	ug/L	< 1.0	< 1.0	--	--
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	--	--
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	--	--
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	--	--
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	--	--
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	--	--
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	--	--
Bromoform	2.0	ug/L	< 2.0	< 2.0	--	--
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	--	--
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	--	--
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	--	--
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:

NEI/GTEL Wichita, KS

W7040081

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8010/8020

Matrix: Aqueous

NEI/GTEL Sample Number	W7040081-06	W7040081-07	--	--
Client ID	MW-203	MW-202A	--	--
Date Sampled	04/03/97	04/03/97	--	--
Date Analyzed	04/14/97	04/15/97	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting		Concentration:
	Limit	Units	

Notes: (continued)

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organics

Method: EPA 8010/8

Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met

* = See Comments

-- = Not Required

NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	X	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	*	--	--
Method Precision	X	--	--
Blank Contamination	X	--	--

Comments:

NEI/GTEL Wichita, KS

W7040081:1

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organic

Method: EPA 8010/8

Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	BFB ELCD	BFB PID
Method: EPA 8010/8020 Acceptability Limits:			52.8-144%	77.3-129%
041497GC11-1	CV0414972011	Calibration Verifi	98.2	102.
041497GC11-2	BW04149711	Method Blank Water	97.0	101.
041497GC11-4	DP04015520	Duplicate	98.6	100.
041497GC11-5	MS04004805	Matrix Spike	95.8	103.
041497GC11-6	LW0414972011	Laboratory Control	99.0	103.
--	04008101	MW-201B	98.6	100.
--	04008102	MW-202B	93.5	102.
--	04008103	MW-202(FILTERED)	101.	105.
--	04008105	MW-201	104.	99.9
--	04008106	MW-203	104.	100.
--	04008107	MW-202A	104.	106.

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

NEI/GTEL Client ID: OTC010TC01
Login Number: W7040081
Project ID (number): 1315-269
Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8010/8
Matrix: Aqueous

Method Blank Results

QC Batch No: 041497GC11-2
Date Analyzed: 14-APR-97

Analyte	Method:EPA 8010/8020 Concentration: ug/L
Dichlorodifluoromethane	< 5.00
Chloromethane	< 2.00
Vinyl chloride	< 1.00
Bromomethane	< 2.00
Chloroethane	< 1.00
Trichlorofluoromethane	< 1.00
1,1-Dichloroethene	< 1.00
Methylene chloride	< 1.00
trans-1,2-Dichloroethene	< 1.00
1,1-Dichloroethane	< 1.00
cis-1,2-Dichloroethene	< 1.00
Chloroform	< 1.00
1,1,1-Trichloroethane	< 1.00
Carbon tetrachloride	< 1.00
Benzene	< 0.500
1,2-Dichloroethane	< 1.00
Trichloroethene	< 1.00
1,2-Dichloropropane	< 1.00
Bromodichloromethane	< 1.00
2-Chloroethyl vinyl ether	< 1.00
cis-1,3-Dichloropropene	< 1.00
trans-1,3-Dichloropropene	< 1.00
Toluene	< 1.00
1,1,2-Trichloroethane	< 1.00
Tetrachloroethene	< 1.00
Dibromochloromethane	< 1.00
Chlorobenzene	< 1.00
Ethylbenzene	< 1.00
Xylenes (Total)	< 1.00
Bromoform	< 2.00
1,1,2,2-Tetrachloroethane	< 1.00
1,3-Dichlorobenzene	< 1.00
1,4-Dichlorobenzene	< 1.00
1,2-Dichlorobenzene	< 1.00

Notes:

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organic

Method: EPA 8010/8

Matrix: Aqueous

Calibration Verification Sample Summary

Analyte	Spike	Check Sample	QC Percent	Acceptability Limits
	Amount	Concentration	Recovery	Recovery
EPA 8010/8020	Units:ug/L	QC Batch:041497GC11-1		
Dichlorodifluoromethane	20.0	22.0	110.	40-160%
Chloromethane	20.0	17.4	87.0	59.5-140.5%
Vinyl chloride	20.0	20.5	103.	68.5-131.5%
Bromomethane	20.0	19.4	97.0	58.5-141.5%
Chloroethane	20.0	18.2	91.0	77-123%
Trichlorofluoromethane	20.0	19.5	97.5	66.5-133.5%
1,1-Dichloroethene	20.0	22.4	112.	63-137%
Methylene chloride	20.0	19.5	97.5	77.5-122.5%
trans-1,2-Dichloroethene	20.0	18.9	94.5	64-136%
1,1-Dichloroethane	20.0	18.8	94.0	71.5-116%
cis-1,2-Dichloroethene	20.0	18.6	93.0	64-116%
Chloroform	20.0	19.4	97.0	75-125%
1,1,1-Trichloroethane	20.0	19.2	96.0	71-129%
Carbon tetrachloride	20.0	19.2	96.0	68.5-131.5%
Benzene	20.0	19.6	98.0	77-123%
1,2-Dichloroethane	20.0	20.0	100.	71.5-128.5%
Trichloroethene	20.0	19.3	96.5	77-123%
1,2-Dichloropropane	20.0	19.3	96.5	74-126%
Bromodichloromethane	20.0	18.7	93.5	76-124%
2-Chloroethyl vinyl ether	20.0	18.2	91.0	60-140%
cis-1,3-Dichloropropene	20.0	20.5	103.	64-136%
trans-1,3-Dichloropropene	20.0	19.7	98.5	64-136%
Toluene	20.0	19.7	98.5	77.5-122.5%
1,1,2-Trichloroethane	20.0	19.4	97.0	78.5-121.5%
Tetrachloroethene	20.0	19.0	95.0	70-130%
Dibromochloromethane	20.0	18.5	92.5	65.5-134.5%
Chlorobenzene	20.0	19.7	98.5	72-128%
Ethylbenzene	20.0	20.7	104.	63-137%
Xylenes (Total)	60.0	61.0	102.	36-136%
Bromoform	20.0	18.3	91.5	73.5-126.5%
1,1,2,2-Tetrachloroethane	20.0	18.7	93.5	49-151%
1,3-Dichlorobenzene	20.0	18.5	92.5	49.5-150.5%
1,4-Dichlorobenzene	20.0	19.1	95.5	69.5-130.5%
1,2-Dichlorobenzene	20.0	19.0	95.0	70-130%

Notes:

NEI/GTEL Wichita, KS

W7040081:4

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040081

Volatile Organics

Project ID (number): 1315-269

Method: EPA 8010/8

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Laboratory Control Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8010/8020 Units:ug/L	QC Batch:041497GC11-6			
Dichlorodifluoromethane	20.0	26.2	131.	40-160%
Chloromethane	20.0	21.4	107.	10-193%
Vinyl chloride	20.0	23.0	115.	28-163%
Bromomethane	20.0	19.5	97.5	10-144%
Chloroethane	20.0	19.4	97.0	46-137%
Trichlorofluoromethane	20.0	20.4	102.	21-156%
1,1-Dichloroethene	20.0	22.8	114.	28-167%
Methylene chloride	20.0	20.9	105.	25-162%
trans-1,2-Dichloroethene	20.0	20.3	102.	38-155%
1,1-Dichloroethane	20.0	20.6	103.	47-132%
cis-1,2-Dichloroethene	20.0	19.4	97.0	38-155%
Chloroform	20.0	20.6	103.	49-133%
1,1,1-Trichloroethane	20.0	20.8	104.	41-138%
Carbon tetrachloride	20.0	20.9	105.	43-143%
Benzene	20.0	20.6	103.	39-150%
1,2-Dichloroethane	20.0	20.3	102.	51-147%
Trichloroethene	20.0	23.4	117.	35-146%
1,2-Dichloropropane	20.0	20.2	101.	44-156%
Bromodichloromethane	20.0	19.4	97.0	42-172%
2-Chloroethyl vinyl ether	20.0	17.8	89.0	14-186%
cis-1,3-Dichloropropene	20.0	18.6	93.0	22-178%
trans-1,3-Dichloropropene	20.0	18.3	91.5	22-178%
Toluene	20.0	20.8	104.	46-148%
1,1,2-Trichloroethane	20.0	20.1	101.	39-136%
Tetrachloroethene	20.0	21.1	106.	26-162%
Dibromochloromethane	20.0	20.3	102.	24-191%
Chlorobenzene	20.0	19.3	96.5	38-150%
Ethylbenzene	20.0	21.9	110.	32-160%
Xylenes (Total)	60.0	64.3	107.	36-136%
Bromoform	20.0	19.3	96.5	13-159%
1,1,2,2-Tetrachloroethane	20.0	16.0	80.0	10-184%
1,3-Dichlorobenzene	20.0	19.2	96.0	10-187%
1,4-Dichlorobenzene	20.0	20.1	101.	42-143%
1,2-Dichlorobenzene	20.0	19.8	99.0	10-208%

Notes:

NEI/GTEL Wichita, KS

W7040081:5

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organics

Method: EPA 8010/6

Matrix: Aqueous

Duplicate Sample Results

Analyte	Original Concentration	Duplicate Concentration	RPD, %	Acceptability Limits, %
EPA 8010/8020 Units: ug/L	QC Batch: 041497GC11-4	GTEL Sample ID: W7040155-20		Client ID: Batch QC
Dichlorodifluoromethane	< 5.00	< 5.00	NA	35.4
Chloromethane	< 2.00	< 2.00	NA	24.2
Vinyl chloride	< 1.00	< 1.00	NA	18.6
Bromomethane	< 2.00	< 2.00	NA	24.8
Chloroethane	< 1.00	< 1.00	NA	14.4
Trichlorofluoromethane	< 1.00	< 1.00	NA	19.6
1,1-Dichloroethene	< 1.00	< 1.00	NA	21.6
Methylene chloride	2.13	2.62	20.6	40.0
trans-1,2-Dichloroethene	< 1.00	< 1.00	NA	20.9
1,1-Dichloroethane	< 1.00	< 1.00	NA	10.5
cis-1,2-Dichloroethene	4.11	4.10	0.244	20.9
Chloroform	< 1.00	< 1.00	NA	14.7
1,1,1-Trichloroethane	< 1.00	< 1.00	NA	16
Carbon tetrachloride	< 1.00	< 1.00	NA	18.3
1,2-Dichloroethane	< 1.00	< 1.00	NA	17
Trichloroethene	32.1	31.8	0.939	13.7
1,2-Dichloropropane	< 1.00	< 1.00	NA	17
Bromodichloromethane	< 1.00	< 1.00	NA	13.1
2-Chloroethyl vinyl ether	< 1.00	< 1.00	NA	27.1
cis-1,3-Dichloropropene	< 1.00	< 1.00	NA	23.8
trans-1,3-Dichloropropene	< 1.00	< 1.00	NA	23.8
1,1,2-Trichloroethane	< 1.00	< 1.00	NA	12.8
Tetrachloroethene	7.93	7.83	1.27	17.7
Dibromochloromethane	< 1.00	< 1.00	NA	20.6
Chlorobenzene	< 1.00	< 1.00	NA	16.4
Bromoform	< 2.00	< 2.00	NA	15.4
1,1,2,2-Tetrachloroethane	< 1.00	< 1.00	NA	30
1,3-Dichlorobenzene	< 1.00	< 1.00	NA	29.7
1,4-Dichlorobenzene	< 1.00	< 1.00	NA	18
1,2-Dichlorobenzene	< 1.00	< 1.00	NA	18

Notes:

NA - The concentration of the analyte is less than the reporting limit.

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040081

Volatile Organics

Project ID (number): 1315-269

Method: EPA 8010/8

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Matrix Spike(MS) Results

GTEL Sample ID:W7040048-05

MS ID:MS04004805

Analysis Date: 14-APR-97

15-APR-97

Units: ug/L	Sample	Spike	MS	MS	Acceptability Limits
Analyte	Conc.	Added	Conc.	% Rec.	%Rec.
Dichlorodifluoromethane	< 5.0 (0.000)	20.0	21.3	107.	40-160
Chloromethane	< 2.0 (0.000)	20.0	20.0	100.	10-193
Vinyl chloride	< 1.0 (0.000)	20.0	20.2	101.	28-163
Bromomethane	< 2.0 (0.000)	20.0	17.7	88.5	10-144
Chloroethane	< 1.0 (0.000)	20.0	17.5	87.5	46-137
Trichlorofluoromethane	< 1.0 (0.000)	20.0	17.2	86.0	21-156
1,1-Dichloroethene	< 1.0 (0.000)	20.0	21.2	106.	28-167
Methylene chloride	< 1.0 (0.000)	20.0	19.4	97.0	25-162
trans-1,2-Dichloroethene	< 1.0 (0.000)	20.0	18.6	93.0	38-155
1,1-Dichloroethane	< 1.0 (0.000)	20.0	19.4	97.0	47-132
cis-1,2-Dichloroethene	< 1.0 (0.000)	20.0	18.6	93.0	38-155
Chloroform	< 1.0 (0.000)	20.0	19.5	97.5	49-133
1,1,1-Trichloroethane	< 1.0 (0.000)	20.0	19.1	95.5	41-138
Carbon tetrachloride	< 1.0 (0.000)	20.0	18.7	93.5	43-143
Benzene	< 0.50(0.000)	20.0	19.4	97.0	39-150
1,2-Dichloroethane	< 1.0 (0.000)	20.0	19.7	98.5	51-147
Trichloroethene	< 1.0 (0.000)	20.0	18.8	94.0	35-146
1,2-Dichloropropane	< 1.0 (0.000)	20.0	19.6	98.0	44-156
Bromodichloromethane	< 1.0 (0.000)	20.0	18.6	93.0	42-172
2-Chloroethyl vinyl ether	< 1.0 (0.000)	20.0	0.00	0.00*	14-186
cis-1,3-Dichloropropene	< 1.0 (0.000)	20.0	17.8	89.0	22-178
trans-1,3-Dichloropropene	< 1.0 (0.000)	20.0	17.4	87.0	22-178
Toluene	< 1.0 (0.000)	20.0	19.2	96.0	46-148
1,1,2-Trichloroethane	< 1.0 (0.000)	20.0	19.4	97.0	39-136
Tetrachloroethene	< 1.0 (0.000)	20.0	18.5	92.5	26-162
Dibromochloromethane	< 1.0 (0.000)	20.0	18.8	94.0	24-191
Chlorobenzene	< 1.0 (0.000)	20.0	18.0	90.0	38-150
Ethylbenzene	< 1.0 (0.000)	20.0	19.8	99.0	32-160
Xylenes (Total)	< 1.0 (0.000)	60.0	58.4	97.3	36-136
Bromoform	< 2.0 (0.000)	20.0	18.1	90.5	13-159
1,1,2,2-Tetrachloroethane	< 1.0 (0.000)	20.0	18.7	93.5	10-184
1,3-Dichlorobenzene	< 1.0 (0.000)	20.0	17.2	86.0	10-187
1,4-Dichlorobenzene	< 1.0 (0.000)	20.0	16.5	82.5	42-143
1,2-Dichlorobenzene	< 1.0 (0.000)	20.0	18.3	91.5	10-208

Notes:

Values in parentheses in the sample concentration column are used for % recovery calculations.

041497GC11-5: 2-Chloroethylvinyl ether decomposes in the presence of Hydrochloric Acid (used as a preservative).

NEI/GTEL Wichita, KS

W7040081:7

Chain of Custody Record

Client Name: OPTech		Login #: _____	
Address: 4100 NW Loop 410, #230 5400 ANTONIO, TX 78229		Ship to: Nytest Environmental Inc. 60 Sawview Blvd Port Washington N.Y. 11050 Attn.: Sample Control	
Project Manager: K. PRITCHETT		Date Shipped: _____	
Phone: 210 771-0000 FAX 210 731-0008		Carrier: _____	
Project Name: 1315-269		Air Bill #: _____	
Project Number: CAPITAL AIRPORT		Cooler #: _____	
P.O. #: _____		C of C #: _____	
Analytical Protocol: 3 Deliverables: 14 day		SDG #: _____	
Sampled By: Joe Byrd, JR		NEI QT #: _____	

Analysis Requested				Bin #'s In/Out (For Lab Use Only)		Comments
No. of Containers	VOC	8010/8020	PM	6010/7000		
3	✓		✓			
1		✓				
3	✓					
1		✓				

Relinquished by:		Received by:	
Print Name:	Date / Time	Print Name:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time
Print Name:	Date / Time	Print Name:	Date / Time
Relinquished by:	Date / Time	Received by Laboratory:	Date / Time
Print Name:	Date / Time	Print Name:	Date / Time

Lab Use Only	
Custody Seals: Intact	Broken
Sample Rec'd in Good Condition?:	Y N
Sample Temperature: _____	Degrees Celsius
INSPECTED BY: _____	
COMMENTS: _____	

Special Instructions: **FEDEX AIRBILL: 7970018814**

2nd Confirmation on VOC Detection

Do Manager in PPMs

Special Instructions: FEDEX AIRBILL: 7970018814
2nd Confirmation on VOC. Protection
Do Mangroose in PPMs
 CLIENT RETAINS YELLOW COPY ONLY



Midwest Region

4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

April 23, 1997

Kathryn Pritchett
Operational Technologies Corp.
4100 N.W. Loop 410
Suite 230
San Antonio, TX 78229

RE: NEI/GTEL Client ID:	OTC010TC01
Login Number:	W7040081
Project ID (number):	1315-269
Project ID (name):	OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Dear Kathryn Pritchett:

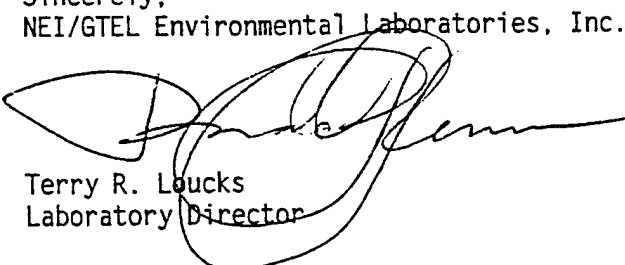
Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 04/04/97 under Chain-of-Custody Number(s) 49103.

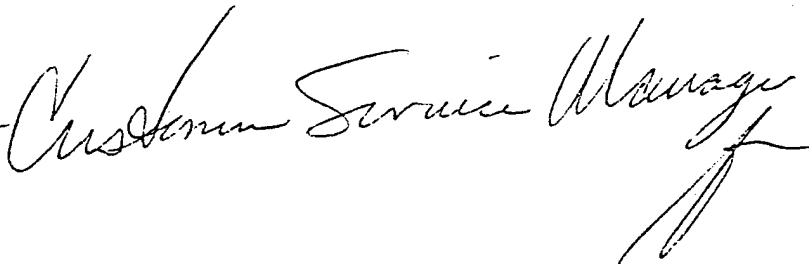
A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the State of Kansas under Certification Numbers E-10103.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
NEI/GTEL Environmental Laboratories, Inc.


Terry R. Loucks
Laboratory Director


Customer Service Manager

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 524.2

Matrix: Aqueous

NEI/GTEL Sample Number	W7040081-08	W7040081-09	W7040081-10	W7040081-11
Client ID	MW-201B	MW-202B	MW-202(FILTERED)	MW-202A
Date Sampled	04/03/97	04/03/97	04/03/97	04/03/97
Date Analyzed	04/15/97	04/15/97	04/15/97	04/15/97
Dilution Factor	5.00	5.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:			
Dichlorodifluoromethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Chloromethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Bromomethane	1.0	ug/L	< 5.0	< 5.0	< 1.0	< 1.0
Vinyl chloride	0.5	ug/L	< 2.5	58.	8.5	59.
Chloroethane	0.5	ug/L	< 2.5	< 2.5	1.8	0.9
Trichlorofluoromethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
1,1-Dichloroethene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Methylene chloride	1.0	ug/L	< 5.0	< 5.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	0.5	ug/L	< 2.5	< 2.5	< 0.5	1.0
1,1-Dichloroethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
2,2-Dichloropropane	1.0	ug/L	< 5.0	< 5.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	0.5	ug/L	18.	130	4.4	120
Chloroform	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Bromochloromethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
1,1,1-Trichloroethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
1,1-Dichloropropene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Carbon tetrachloride	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Benzene	0.5	ug/L	< 2.5	< 2.5	< 0.5	0.8
1,2-Dichloroethane	0.5	ug/L	< 2.5	< 2.5	0.7	2.2
Trichloroethene	0.5	ug/L	< 2.5	< 2.5	< 0.5	2.5
1,2-Dichloropropane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Bromodichloromethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Dibromomethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
2-Chloroethylvinyl ether	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
cis-1,3-Dichloropropene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Toluene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
trans-1,3-Dichloropropene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
1,1,2-Trichloroethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
1,2-Dibromoethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Tetrachloroethene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
1,3-Dichloropropane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Dibromochloromethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Chlorobenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Ethylbenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
1,1,1,2-Tetrachloroethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
m+p-Xylene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
o-Xylene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Styrene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Bromoform	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5

NEI/GTEL Wichita, KS

W7040081

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 524.2

Matrix: Aqueous

NEI/GTEL Sample Number	W7040081-08	W7040081-09	W7040081-10	W7040081-11
Client ID	MW-201B	MW-202B	MW-202(FILTERED)	MW-20
Date Sampled	04/03/97	04/03/97	04/03/97	04/03/97
Date Analyzed	04/15/97	04/15/97	04/15/97	04/15/97
Dilution Factor	5.00	5.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:		
Isopropylbenzene	0.5	ug/L	< 2.5	< 2.5	0.6
1,1,2,2-Tetrachloroethane	0.5	ug/L	< 2.5	< 2.5	< 0.5
1,2,3-Trichloropropane	1.0	ug/L	< 5.0	< 5.0	< 0.5
n-Propylbenzene	0.5	ug/L	< 2.5	< 2.5	< 1.0
Bromobenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5
1,3,5-Trimethylbenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5
2-Chlorotoluene	0.5	ug/L	< 2.5	< 2.5	< 0.5
4-Chlorotoluene	0.5	ug/L	< 2.5	< 2.5	< 0.5
tert-Butylbenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5
1,2,4-Trimethylbenzene	0.5	ug/L	< 2.5	< 2.5	0.5
sec-Butylbenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5
p-Isopropyltoluene	0.5	ug/L	< 2.5	< 2.5	1.2
1,3-Dichlorobenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5
1,4-Dichlorobenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5
n-Butylbenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5
1,2-Dichlorobenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5
1,2-Dibromo-3-chloropropane	2.0	ug/L	< 10.	< 10.	< 0.5
1,2,4-Trichlorobenzene	0.5	ug/L	< 2.5	< 2.5	< 2.0
Hexachlorobutadiene	1.0	ug/L	< 5.0	< 5.0	< 0.5
Naphthalene	0.5	ug/L	< 2.5	< 2.5	< 1.0
1,2,3-Trichlorobenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 524.2:

Methods for the Determination of Organic Compounds in Drinking Water, Rev. 4.0. USEPA 1992.

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040081

Volatile Organics

Project ID (number): 1315-269

Method: EPA 524.2

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	DBFM	TOL-d8	4-BFB
Method: EPA 524.2	Acceptability Limits:		70-130%	70-130%	70-130%
041497HP4-1	BW041497HP4	Method Blank Water	105.	97.9	95.0
041497HP4-2	LW041497HP4	Laboratory Control	105.	100.	99.8
041497HP4-3	BW041597HP4	Method Blank Water	112.	94.9	87.6
041497HP4-4	LW041597HP4	Laboratory Control	109.	99.3	91.2
--	04008108	MW-201B	108.	96.5	91.9
--	04008109	MW-202B	112.	96.2	90.0
--	04008110	MW-202(FILTERED)	108.	97.3	104.
--	04008111	MW-202A	102.	99.8	101.

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organics

Method: EPA 524.2

Matrix: Aqueous

Method Blank Results

QC Batch No: 041497HP4-1 041497HP4-3
 Date Analyzed: 14-APR-97 15-APR-97

Analyte	Method:EPA 524.2	Concentration: ug/L
Dichlorodifluoromethane	< 0.500	< 0.500
Chloromethane	< 0.500	< 0.500
Bromomethane	< 1.00	< 1.00
Vinyl chloride	< 0.500	< 0.500
Chloroethane	< 0.500	< 0.500
Trichlorofluoromethane	< 0.500	< 0.500
1,1-Dichloroethene	< 0.500	< 0.500
Methylene chloride	< 1.00	< 1.00
trans-1,2-Dichloroethene	< 0.500	< 0.500
1,1-Dichloroethane	< 0.500	< 0.500
2,2-Dichloropropane	< 0.500	< 0.500
cis-1,2-Dichloroethene	< 0.500	< 0.500
Chloroform	< 0.500	< 0.500
Bromochloromethane	< 0.500	< 0.500
1,1,1-Trichloroethane	< 0.500	< 0.500
1,1-Dichloropropene	< 0.500	< 0.500
Carbon tetrachloride	< 0.500	< 0.500
Benzene	< 0.500	< 0.500
1,2-Dichloroethane	< 0.500	< 0.500
Trichloroethene	< 0.500	< 0.500
1,2-Dichloropropane	< 0.500	< 0.500
Bromodichloromethane	< 0.500	< 0.500
Dibromomethane	< 0.500	< 0.500
2-Chloroethyl vinyl ether	< 0.500	< 0.500
cis-1,3-Dichloropropene	< 0.500	< 0.500
Toluene	< 0.500	< 0.500
trans-1,3-Dichloropropene	< 0.500	< 0.500
1,1,2-Trichloroethane	< 0.500	< 0.500
1,2-Dibromoethane	< 0.500	< 0.500
Tetrachloroethene	< 0.500	< 0.500
1,3-Dichloropropane	< 0.500	< 0.500
Dibromochloromethane	< 0.500	< 0.500
Chlorobenzene	< 0.500	< 0.500
Ethylbenzene	< 0.500	< 0.500
1,1,1,2-Tetrachloroethane	< 0.500	< 0.500
m+p-Xylene	< 0.500	< 0.500
o-Xylene	< 0.500	< 0.500
Styrene	< 0.500	< 0.500
Bromoform	< 0.500	< 0.500
Isopropylbenzene	< 0.500	< 0.500
1,1,2,2-Tetrachloroethane	< 0.500	< 0.500
1,2,3-Trichloropropane	< 0.500	< 0.500
n-Propylbenzene	< 0.500	< 0.500
Bromobenzene	< 0.500	< 0.500

NEI/GTEL Wichita, KS

W7040081:3

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040081

Volatile Organics

Project ID (number): 1315-269

Method: EPA 524.2

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Method Blank Results

1,3,5-Trimethylbenzene	< 0.500	< 0.500
2-Chlorotoluene	< 0.500	< 0.500
4-Chlorotoluene	< 0.500	< 0.500
tert-Butylbenzene	< 0.500	< 0.500
1,2,4-Trimethylbenzene	< 0.500	< 0.500
sec-Butylbenzene	< 0.500	< 0.500
p-Isopropyltoluene	< 0.500	< 0.500
1,3-Dichlorobenzene	< 0.500	< 0.500
1,4-Dichlorobenzene	< 0.500	< 0.500
n-Butylbenzene	< 0.500	< 0.500
1,2-Dichlorobenzene	< 0.500	< 0.500
1,2-Dibromo-3-chloropropane	< 0.500	< 0.500
1,2,4-Trichlorobenzene	< 0.500	< 0.500
Hexachlorobutadiene	< 0.500	< 0.500
Naphthalene	< 0.500	< 0.500
1,2,3-Trichlorobenzene	< 0.500	< 0.500

Notes:

Limits based on laboratory practice i.e. provisional limits.

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organics

Method: EPA 524.2

Matrix: Aqueous

Laboratory Control Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 524.2	Units:ug/L	QC Batch:041497HP4-2		
Vinyl chloride	2.00	2.04	102.	70-130%
1,1-Dichloroethene	2.00	1.97	98.5	70-130%
trans-1,2-Dichloroethene	2.00	1.97	98.5	70-130%
1,1-Dichloroethane	2.00	2.00	100.	70-130%
cis-1,2-Dichloroethene	2.00	1.97	98.5	70-130%
Chloroform	2.00	1.97	98.5	70-130%
1,1,1-Trichloroethane	2.00	1.93	96.5	70-130%
Carbon tetrachloride	2.00	1.80	90.0	70-130%
Benzene	2.00	1.95	97.5	70-130%
1,2-Dichloroethane	2.00	1.80	90.0	70-130%
Trichloroethene	2.00	1.94	97.0	70-130%
Toluene	2.00	2.09	105.	70-130%
1,1,2-Trichloroethane	2.00	1.98	99.0	70-130%
1,2-Dibromoethane	2.00	1.97	98.5	70-130%
Tetrachloroethene	2.00	1.90	95.0	70-130%
Chlorobenzene	2.00	2.14	107.	70-130%
Ethylbenzene	2.00	2.17	109.	70-130%
m+p-Xylene	4.00	4.76	119.	70-130%
o-Xylene	2.00	2.18	109.	70-130%
Styrene	2.00	2.10	105.	70-130%
1,4-Dichlorobenzene	2.00	2.32	116.	70-130%
1,2-Dichlorobenzene	2.00	2.36	118.	70-130%
1,2-Dibromo-3-chloropropane	2.00	2.69	135.*	70-130%
1,2,4-Trichlorobenzene	2.00	2.20	110.	70-130%
EPA 524.2	Units:ug/L	QC Batch:041497HP4-4		
Vinyl chloride	2.00	2.10	105.	70-130%
1,1-Dichloroethene	2.00	2.17	109.	70-130%
trans-1,2-Dichloroethene	2.00	2.15	108.	70-130%
1,1-Dichloroethane	2.00	2.13	107.	70-130%
cis-1,2-Dichloroethene	2.00	2.21	111.	70-130%
Chloroform	2.00	2.05	103.	70-130%
1,1,1-Trichloroethane	2.00	1.95	97.5	70-130%
Carbon tetrachloride	2.00	1.78	89.0	70-130%
Benzene	2.00	2.06	103.	70-130%
1,2-Dichloroethane	2.00	1.74	87.0	70-130%
Trichloroethene	2.00	1.97	98.5	70-130%
Toluene	2.00	2.06	103.	70-130%
1,1,2-Trichloroethane	2.00	1.85	92.5	70-130%
1,2-Dibromoethane	2.00	1.84	92.0	70-130%
Tetrachloroethene	2.00	1.87	93.5	70-130%
Chlorobenzene	2.00	2.09	105.	70-130%
Ethylbenzene	2.00	2.17	109.	70-130%

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040081

Volatile Organics

Project ID (number): 1315-269

Method: EPA 524.2

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Laboratory Control Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
m+p-Xylene	4.00	4.59	115.	70-130%
o-Xylene	2.00	2.03	102.	70-130%
Styrene	2.00	1.94	97.0	70-130%
1,4-Dichlorobenzene	2.00	2.12	106.	70-130%
1,2-Dichlorobenzene	2.00	2.11	106.	70-130%
1,2-Dibromo-3-chloropropane	2.00	1.71	85.5	70-130%
1,2,4-Trichlorobenzene	2.00	2.13	107.	70-130%

Notes:

Limits based on laboratory practice i.e. provisional limits.

NEI/GTEL Wichita, KS

W7040081:6

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organic

Method: EPA 524.2

Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met

* = See Comments

-- = Not Required

NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	--	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	*	--	--
Method Precision	--	--	--
Blank Contamination	X	--	--

Comments:



Midwest Region

4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

April 17, 1997

Kathryn Pritchett
Operational Technologies Corp.
4100 N.W. Loop 410
Suite 230
San Antonio, TX 78229

RE: NEI/GTEL Client ID:	OTC010TC01
Login Number:	W7040048
Project ID (number):	1315-269
Project ID (name):	OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Dear Kathryn Pritchett:

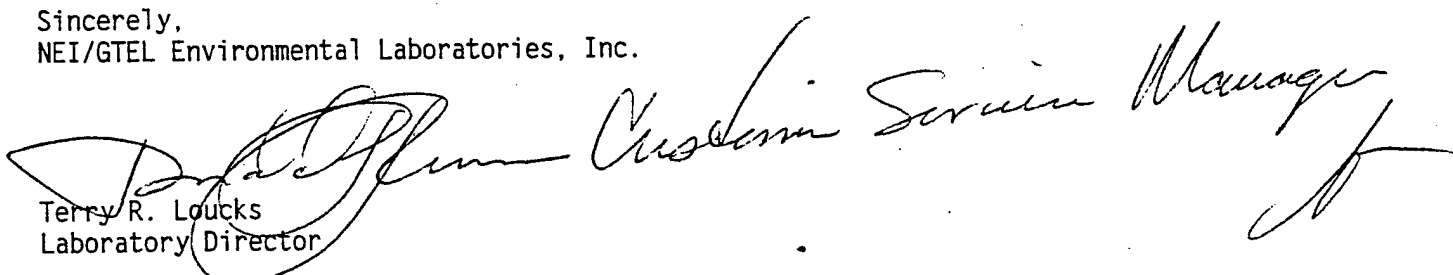
Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 04/03/97 under Chain-of-Custody Number(s) 50582.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the State of Kansas under Certification Numbers E-10103.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
NEI/GTEL Environmental Laboratories, Inc.


Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below

Matrix: Aqueous

NEI/GTEL Sample Number	W7040048-01	W7040048-02	W7040048-03	W7040048-04
Client ID	FIELD BLANK	BAILER RINSATE	MW-104	MW-103
Date Sampled	04/02/97	04/02/97	04/02/97	04/02/97
EPA 6010A	Date Prepared	04/08/97	04/08/97	04/08/97
EPA 6010A	Date Analyzed	04/08/97	04/08/97	04/08/97
EPA 6010A	Dilution Factor	1.00	1.00	1.00
EPA 7041	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7041	Date Analyzed	04/08/97	04/08/97	04/08/97
EPA 7041	Dilution Factor	1.00	1.00	1.00
EPA 7060A	Date Prepared	04/09/97	04/09/97	04/09/97
EPA 7060A	Date Analyzed	04/10/97	04/10/97	04/10/97
EPA 7060A	Dilution Factor	1.00	1.00	1.00
EPA 7421	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7421	Date Analyzed	04/07/97	04/07/97	04/07/97
EPA 7421	Dilution Factor	1.00	1.00	1.00
EPA 7470A	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7470A	Date Analyzed	04/07/97	04/07/97	04/07/97
EPA 7470A	Dilution Factor	1.00	1.00	1.00
EPA 7740	Date Prepared	04/09/97	04/09/97	04/09/97
EPA 7740	Date Analyzed	04/14/97	04/14/97	04/14/97
EPA 7740	Dilution Factor	1.00	1.00	1.00
EPA 7841	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7841	Date Analyzed	04/09/97	04/09/97	04/09/97
EPA 7841	Dilution Factor	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
Inorganics (MT, WC)			
Antimony	EPA 7041	10. ug/L	< 10. < 10. < 10. < 10.
Arsenic	EPA 7060A	10. ug/L	< 10. 68. < 10.
Beryllium	EPA 6010A	5.0 ug/L	< 5.0 < 5.0 < 5.0
Cadmium	EPA 6010A	20. ug/L	< 20. < 20. < 20.
Chromium	EPA 6010A	30. ug/L	< 30. < 30. < 30.
Copper	EPA 6010A	25. ug/L	< 25. < 25. < 25.
Lead	EPA 7421	4.0 ug/L	< 4.0 12. 10.
Mercury	EPA 7470A	0.50 ug/L	< 0.50 < 0.50 < 0.50
Nickel	EPA 6010A	40. ug/L	< 40. < 40. < 40.
Selenium	EPA 7740	10. ug/L	< 10. < 10. < 10.
Silver	EPA 6010A	20. ug/L	< 20. < 20. < 20.
Thallium	EPA 7841	10. ug/L	< 10. < 10. < 10.
Zinc	EPA 6010A	20. ug/L	< 20. 33. 26.

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W7040048

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below

Matrix: Aqueous

NEI/GTEL Sample Number	W7040048-01	W7040048-02	W7040048-03	W7040048-04
Client ID	FIELD BLANK	BAILER RINSATE	MW-104	MW-103
Date Sampled	04/02/97	04/02/97	04/02/97	04/02/97
EPA 6010A	Date Prepared	04/08/97	04/08/97	04/08/97
EPA 6010A	Date Analyzed	04/08/97	04/08/97	04/08/97
EPA 6010A	Dilution Factor	1.00	1.00	1.00
EPA 7041	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7041	Date Analyzed	04/08/97	04/08/97	04/08/97
EPA 7041	Dilution Factor	1.00	1.00	1.00
EPA 7060A	Date Prepared	04/09/97	04/09/97	04/09/97
EPA 7060A	Date Analyzed	04/10/97	04/10/97	04/10/97
EPA 7060A	Dilution Factor	1.00	1.00	1.00
EPA 7421	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7421	Date Analyzed	04/07/97	04/07/97	04/07/97
EPA 7421	Dilution Factor	1.00	1.00	1.00
EPA 7470A	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7470A	Date Analyzed	04/07/97	04/07/97	04/07/97
EPA 7470A	Dilution Factor	1.00	1.00	1.00
EPA 7740	Date Prepared	04/09/97	04/09/97	04/09/97
EPA 7740	Date Analyzed	04/14/97	04/14/97	04/14/97
EPA 7740	Dilution Factor	1.00	1.00	1.00
EPA 7841	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7841	Date Analyzed	04/09/97	04/09/97	04/09/97
EPA 7841	Dilution Factor	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
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EPA 7421, EPA 7841:

Digestion for Total Metals by EPA Method 3020A.

Digestion for Total Metals by EPA Method 3020A.

EPA 7060A, EPA 7740:

Digestion by EPA Method 7060.

EPA 7470A:

Digestion is method specific.

EPA 6010A, EPA 7041, EPA 7060A, EPA 7421, EPA 7470A, EPA 7740, EPA 7841:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 2.

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below

Matrix: Aqueous

NEI/GTEL Sample Number	W7040048-05	W7040048-06	--	--
Client ID	MW-102	MW-101	--	--
Date Sampled	04/02/97	04/02/97	--	--
EPA 6010A Date Prepared	04/08/97	04/08/97	--	--
EPA 6010A Date Analyzed	04/08/97	04/08/97	--	--
EPA 6010A Dilution Factor	1.00	1.00	--	--
EPA 7041 Date Prepared	04/07/97	04/07/97	--	--
EPA 7041 Date Analyzed	04/08/97	04/08/97	--	--
EPA 7041 Dilution Factor	1.00	1.00	--	--
EPA 7060A Date Prepared	04/09/97	04/09/97	--	--
EPA 7060A Date Analyzed	04/10/97	04/10/97	--	--
EPA 7060A Dilution Factor	1.00	1.00	--	--
EPA 7421 Date Prepared	04/07/97	04/07/97	--	--
EPA 7421 Date Analyzed	04/07/97	04/07/97	--	--
EPA 7421 Dilution Factor	1.00	1.00	--	--
EPA 7470A Date Prepared	04/07/97	04/07/97	--	--
EPA 7470A Date Analyzed	04/07/97	04/07/97	--	--
EPA 7470A Dilution Factor	1.00	1.00	--	--
EPA 7740 Date Prepared	04/09/97	04/09/97	--	--
EPA 7740 Date Analyzed	04/14/97	04/14/97	--	--
EPA 7740 Dilution Factor	1.00	1.00	--	--
EPA 7841 Date Prepared	04/07/97	04/07/97	--	--
EPA 7841 Date Analyzed	04/09/97	04/09/97	--	--
EPA 7841 Dilution Factor	1.00	1.00	--	--

Analyte	Reporting	Limit	Units	Concentration:	--	--
Antimony	EPA 7041	10.	ug/L	< 10.	--	--
Arsenic	EPA 7060A	10.	ug/L	< 10.	--	--
Beryllium	EPA 6010A	5.0	ug/L	< 5.0	--	--
Cadmium	EPA 6010A	20.	ug/L	< 20.	--	--
Chromium	EPA 6010A	30.	ug/L	< 30.	--	--
Copper	EPA 6010A	25.	ug/L	< 25.	--	--
Lead	EPA 7421	4.0	ug/L	6.8	--	--
Mercury	EPA 7470A	0.50	ug/L	< 0.50	--	--
Nickel	EPA 6010A	40.	ug/L	< 40.	--	--
Selenium	EPA 7740	10.	ug/L	< 10.	--	--
Silver	EPA 6010A	20.	ug/L	< 20.	--	--
Thallium	EPA 7841	10.	ug/L	< 10.	--	--
Zinc	EPA 6010A	20.	ug/L	33.	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W7040048

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below

Matrix: Aqueous

NEI/GTEL Sample Number	W7040048-05	W7040048-06	--	--
Client ID	MW-102	MW-101	--	--
Date Sampled	04/02/97	04/02/97	--	--
EPA 6010A	Date Prepared	04/08/97	04/08/97	--
EPA 6010A	Date Analyzed	04/08/97	04/08/97	--
EPA 6010A	Dilution Factor	1.00	1.00	--
EPA 7041	Date Prepared	04/07/97	04/07/97	--
EPA 7041	Date Analyzed	04/08/97	04/08/97	--
EPA 7041	Dilution Factor	1.00	1.00	--
EPA 7060A	Date Prepared	04/09/97	04/09/97	--
EPA 7060A	Date Analyzed	04/10/97	04/10/97	--
EPA 7060A	Dilution Factor	1.00	1.00	--
EPA 7421	Date Prepared	04/07/97	04/07/97	--
EPA 7421	Date Analyzed	04/07/97	04/07/97	--
EPA 7421	Dilution Factor	1.00	1.00	--
EPA 7470A	Date Prepared	04/07/97	04/07/97	--
EPA 7470A	Date Analyzed	04/07/97	04/07/97	--
EPA 7470A	Dilution Factor	1.00	1.00	--
EPA 7740	Date Prepared	04/09/97	04/09/97	--
EPA 7740	Date Analyzed	04/14/97	04/14/97	--
EPA 7740	Dilution Factor	1.00	1.00	--
EPA 7841	Date Prepared	04/07/97	04/07/97	--
EPA 7841	Date Analyzed	04/09/97	04/09/97	--
EPA 7841	Dilution Factor	1.00	1.00	--

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

EPA 7421, EPA 7841:

Digestion for Total Metals by EPA Method 3020A.

Digestion for Total Metals by EPA Method 3020A.

EPA 7060A, EPA 7740:

Digestion by EPA Method 7060.

EPA 7470A:

Digestion is method specific.

EPA 6010A, EPA 7041, EPA 7060A, EPA 7421, EPA 7470A, EPA 7740, EPA 7841:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 2.

Project ID (Number): 1315-269
Project ID (Name): OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0048
Date Reported: 04-17-97

QA NONCONFORMANCE SUMMARY

1.0 Sample Handling

- 1.1 Sample handling and holding time criteria were not met for zero samples.

2.0 Initial Calibration Verification

- 2.1 The validity for the calibration verification was exceeded for zero samples as shown in Table 2.

3.0 Method Blanks

- 3.1 Zero target elements were found in the method blank as shown in Table 3.

4.0 Matrix Spike (MS) Accuracy

- 4.1 The recovery limits were exceeded in one element for the matrix spike.
4.2 The recovery limits for the matrix spike and matrix spike duplicate were exceeded for antimony due to precipitation of the element in the presence of the sample matrix.

5.0 Sample Duplicate Precision

- 5.1 The maximum percent difference (RPD) was exceeded for one element in the matrix spike and matrix spike duplicate samples as shown in Tables 4A and 4B.
5.2 The maximum percent difference (RPD) was exceeded for antimony in the matrix spike and the matrix spike duplicate due to precipitation of the element in the sample matrix.

6.0 Laboratory Control Sample

- 6.1 The recovery limits were not met for zero elements for the laboratory control samples as shown in Table 5.

Project ID (Number): 1315-269
Project ID (Name): OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0048
Date Reported: 04-17-97

Table 2
INITIAL CALIBRATION VERIFICATION QC CHECK SAMPLE REPORT
Metals in Water^a

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	43.8	110	90-110
Arsenic	40.0	40.0	100	90-110
Beryllium	1000	1020	102	90-110
Cadmium	1000	1030	103	90-110
Chromium	1000	1020	102	90-110
Copper	1000	1020	102	90-110
Lead	20.0	20.7	104	90-110
Mercury	4.00	4.17	104	90-110
Nickel	1000	1040	104	90-110
Selenium	40.0	39.4	98.5	90-110
Silver	500	524	105	90-110
Thallium	20.0	20.2	101	90-110
Zinc	1000	1040	104	90-110

a Acceptability limits as per EPA Contract Laboratory Program

Project ID (Number): 1315-269
Project ID (Name): OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0048
Date Reported: 04-17-97

Table 3
BLANK REPORT
Metals in Water

Analyte	Initial Calibration Blank, ug/L	Preparation Blank, ug/L
Antimony	<10	<10
Arsenic	<10	<10
Beryllium	<5.0	<5.0
Cadmium	<20	<20
Chromium	<30	<30
Copper	<25	<25
Lead	<4.0	<4.0
Mercury	<0.50	<0.50
Nickel	<40	<40
Selenium	<10	<10
Silver	<20	<20
Thallium	<10	<10
Zinc	<20	<20

<# Not detected at the indicated detection limit (#)

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0048
 Date Reported: 04-17-97

Table 4A
MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY
Metals in Water

Sample Spiked: Method 6010A W7040112-01
 Sample Spiked: Method 7041 W7040081-01
 Sample Spiked: Method 7060A W7040021-01
 Sample Spiked: Method 7421 W7040081-01
 Sample Spiked: Method 7470A W7040021-01
 Sample Spiked: Method 7740 W7040021-01
 Sample Spiked: Method 7841 W7040081-01

Analyte	Spike Added, ug/L	Sample Concentration, ug/L	MS Concentration, ug/L	MS Percent Recovery	Acceptability Limits, % ^a
Antimony	40.0	<10.0	15.1	37.8 ^b	75-125
Arsenic	40.0	<10.0	40.9	102	75-125
Beryllium	133	<5.0	118	88.8	80-120
Cadmium	168	<20	158	93.8	80-120
Chromium	333	<30	302	90.5	80-120
Copper	333	<25	310	93.0	80-120
Lead	20.0	23.9	39.4	77.5	75-125
Mercury	2.00	<0.50	1.66	83.0	75-125
Nickel	333	<40	292	87.5	80-120
Selenium	40.0	<10.0	41.7	104	75-125
Silver	66.7	<20	62.0	92.3	80-120
Thallium	20.0	<10.0	17.2	86.0	80-120
Zinc	333	<20	313	93.7	80-120

a Acceptability limits as per EPA Contract Laboratory Program.

b Value is outside of acceptability limits.

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0048
 Date Reported: 04-17-97

Table 4B
MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY
Metals in Water

Analyte	Spike Added, ug/L	MSD Concentration, ug/L	MSD Percent Recovery	RPD %	Acceptability Limits, % ^a
					RPD
Antimony	40.0	11.5	28.8	27.1 ^b	20.0
Arsenic	40.0	43.0	108	5.00	20.0
Beryllium	133	110	82.7	7.09	20.0
Cadmium	168	143	85.0	9.87	20.0
Chromium	333	277	83.1	8.63	20.0
Copper	333	278	83.4	10.9	20.0
Lead	20.0	37.4	67.5	1.26	20.0
Mercury	2.00	1.42	71.0	15.6	20.0
Nickel	333	270	81.1	7.59	20.0
Selenium	40.0	40.6	102	2.67	20.0
Silver	66.7	55.0	83.2	10.4	20.0
Thallium	20.0	17.7	88.5	2.86	20.0
Zinc	333	284	85.2	9.57	20.0

- a Acceptability limits as per EPA Contract Laboratory Program.
 b Value is outside of acceptability limits.

Project ID (Number): 1315-269
Project ID (Name): OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0048
Date Reported: 04-17-97

Table 5
LABORATORY CONTROL SAMPLE RESULTS
Metals in Water

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	39.3	98.2	75-125
Arsenic	40.0	43.1	108	75-125
Beryllium	800	797	99.6	80-120
Cadmium	1010	943	93.4	80-120
Chromium	2000	1960	98.0	80-120
Copper	2000	1930	96.5	80-120
Lead	20.0	20.7	104	75-125
Mercury	2.00	1.80	90.0	75-125
Nickel	2000	1940	97.0	80-120
Selenium	40.0	39.7	99.2	75-125
Silver	400	368	92.0	80-120
Thallium	20.0	21.0	105	75-125
Zinc	2000	1880	94.0	80-120

a Acceptability limits established by laboratory practice

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0048
 Date Reported: 04-17-97

Table 6
 LABORATORY CONTROL SAMPLE RESULTS
 Metals in Water

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	37.6	94.0	36.2	90.5	80-120
Arsenic	40.0	43.5	109	47.1	118	80-120
Beryllium	2000	2060	103	2090	104	90-110
Cadmium	2500	2660	106	2700	108	90-110
Chromium	5000	5280	106	5390	108	90-110
Copper	5000	4980	99.5	5120	102	90-110
Lead	20.0	22.2	111	21.8	109	80-120
Mercury	4.00	4.08	102	4.17	104	80-120
Nickel	5000	5345	107	5434	109	90-110
Selenium	40.0	39.2	98.0	42.4	106	80-120
Silver	1000	1020	102	1050	105	90-110
Thallium	20.0	19.6	98.0	18.6	93.0	80-120
Zinc	5000	5300	106	5360	107	90-110

a Acceptability limits established by laboratory practice

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0048
 Date Reported: 04-17-97

Table 6
LABORATORY CONTROL SAMPLE RESULTS
Metals in Water

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	39.0	97.5	---	---	80-120
Arsenic	40.0	45.1	113	---	---	80-120
Beryllium	2000	2100	105	---	---	90-110
Cadmium	2500	2740	110	---	---	90-110
Chromium	5000	5500	110	---	---	90-110
Copper	5000	5210	104	---	---	90-110
Lead	20.0	22.4	112	22.2	111	80-120
Mercury	4.00	4.18	105	4.24	106	80-120
Nickel	5000	5500	110	---	---	90-110
Selenium	40.0	46.4	116	---	---	80-120
Silver	1000	1070	107	---	---	90-110
Thallium	20.0	20.4	102	---	---	80-120
Zinc	5000	5440	109	---	---	90-110

a Acceptability limits established by laboratory practice

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8010/8020

Matrix: Aqueous

NEI/GTEL Sample Number	W7040048-01	W7040048-02	W7040048-03	W7040048-04
Client ID	FIELD BLANK	BAILER RINSATE	MW-104	MW-103
Date Sampled	04/02/97	04/02/97	04/02/97	04/02/97
Date Analyzed	04/14/97	04/14/97	04/14/97	04/14/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:			
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	1.0	ug/L	1.9	1.7	< 1.0	< 1.0
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	1.1	< 1.0
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:

NEI/GTEL Wichita, KS

W7040048

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8010/8020

Matrix: Aqueous

NEI/GTEL Sample Number	W7040048-01	W7040048-02	W7040048-03	W7040048-04
Client ID	FIELD BLANK	BAILER RINSATE	MW-104	MW-103
Date Sampled	04/02/97	04/02/97	04/02/97	04/02/97
Date Analyzed	04/14/97	04/14/97	04/14/97	04/14/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8010/8020

Matrix: Aqueous

NEI/GTEL Sample Number	W7040048-05	W7040048-06	W7040048-07	--
Client ID	MW-102	MW-101	TBNK12	--
Date Sampled	04/02/97	04/02/97		--
Date Analyzed	04/14/97	04/14/97	04/14/97	--
Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting Limit	Units	Concentration:			
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	--
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	--
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	--
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Chloroform	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Benzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Trichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	--
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:

NEI/GTEL Wichita, KS

W7040048

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01
Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8010/8020
Matrix: Aqueous

NEI/GTEL Sample Number	W7040048-05	W7040048-06	W7040048-07	..
Client ID	MW-102	MW-101	TBNK12	..
Date Sampled	04/02/97	04/02/97		..
Date Analyzed	04/14/97	04/14/97	04/14/97	..
Dilution Factor	1.00	1.00	1.00	..

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SW-846. Third Edition including promulgated Update II.

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organics

Method: EPA 8010/8

Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	X	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	*	--	--
Method Precision	X	--	--
Blank Contamination	X	--	--

Comments:

NEI/GTEL Wichita, KS

W7040048:1

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organics

Method: EPA 8010/8

Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	BFB ELCD	BFB PID
Method: EPA 8010/8020 Acceptability Limits:			52.8-144%	77.3-129%
041497GC11-1	CV0414972011	Calibration Verifi	98.2	102.
041497GC11-2	BW04149711	Method Blank Water	97.0	101.
041497GC11-4	DP04015520	Duplicate	98.6	100.
041497GC11-5	MS04004805	Matrix Spike	95.8	103.
041497GC11-6	LW0414972011	Laboratory Control	99.0	103.
--	04004801	FIELD BLANK	93.5	101.
--	04004802	BAILER RINSATE	96.5	100.
--	04004803	MW-104	99.6	106.
--	04004804	MW-103	100.	104.
--	04004805	MW-102	97.7	99.8
--	04004806	MW-101	94.0	99.3
--	04004807	TBNK12	94.3	99.9

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organics

Method: EPA 8010/8

Matrix: Aqueous

Method Blank Results

QC Batch No: 041497GC11-2

Date Analyzed: 14-APR-97

Analyte	Method:EPA 8010/8020	Concentration: ug/L
Dichlorodifluoromethane	< 5.00	
Chloromethane	< 2.00	
Vinyl chloride	< 1.00	
Bromomethane	< 2.00	
Chloroethane	< 1.00	
Trichlorofluoromethane	< 1.00	
1,1-Dichloroethene	< 1.00	
Methylene chloride	< 1.00	
trans-1,2-Dichloroethene	< 1.00	
1,1-Dichloroethane	< 1.00	
cis-1,2-Dichloroethene	< 1.00	
Chloroform	< 1.00	
1,1,1-Trichloroethane	< 1.00	
Carbon tetrachloride	< 1.00	
Benzene	< 0.500	
1,2-Dichloroethane	< 1.00	
Trichloroethene	< 1.00	
1,2-Dichloropropane	< 1.00	
Bromodichloromethane	< 1.00	
2-Chloroethyl vinyl ether	< 1.00	
cis-1,3-Dichloropropene	< 1.00	
trans-1,3-Dichloropropene	< 1.00	
Toluene	< 1.00	
1,1,2-Trichloroethane	< 1.00	
Tetrachloroethene	< 1.00	
Dibromochloromethane	< 1.00	
Chlorobenzene	< 1.00	
Ethylbenzene	< 1.00	
Xylenes (Total)	< 1.00	
Bromoform	< 2.00	
1,1,2,2-Tetrachloroethane	< 1.00	
1,3-Dichlorobenzene	< 1.00	
1,4-Dichlorobenzene	< 1.00	
1,2-Dichlorobenzene	< 1.00	

Notes:

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organics

Method: EPA 8010/8

Matrix: Aqueous

Calibration Verification Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8010/8020 Units:ug/L		QC Batch:041497GC11-1		
Dichlorodifluoromethane	20.0	22.0	110.	40-160%
Chloromethane	20.0	17.4	87.0	59.5-140.5%
Vinyl chloride	20.0	20.5	103.	68.5-131.5%
Bromomethane	20.0	19.4	97.0	58.5-141.5%
Chloroethane	20.0	18.2	91.0	77-123%
Trichlorofluoromethane	20.0	19.5	97.5	66.5-133.5%
1,1-Dichloroethene	20.0	22.4	112.	63-137%
Methylene chloride	20.0	19.5	97.5	77.5-122.5%
trans-1,2-Dichloroethene	20.0	18.9	94.5	64-136%
1,1-Dichloroethane	20.0	18.8	94.0	71.5-116%
cis-1,2-Dichloroethene	20.0	18.6	93.0	64-116%
Chloroform	20.0	19.4	97.0	75-125%
1,1,1-Trichloroethane	20.0	19.2	96.0	71-129%
Carbon tetrachloride	20.0	19.2	96.0	68.5-131.5%
Benzene	20.0	19.6	98.0	77-123%
1,2-Dichloroethane	20.0	20.0	100.	71.5-128.5%
Trichloroethene	20.0	19.3	96.5	77-123%
1,2-Dichloropropane	20.0	19.3	96.5	74-126%
Bromodichloromethane	20.0	18.7	93.5	76-124%
2-Chloroethyl vinyl ether	20.0	18.2	91.0	60-140%
cis-1,3-Dichloropropene	20.0	20.5	103.	64-136%
trans-1,3-Dichloropropene	20.0	19.7	98.5	64-136%
Toluene	20.0	19.7	98.5	77.5-122.5%
1,1,2-Trichloroethane	20.0	19.4	97.0	78.5-121.5%
Tetrachloroethene	20.0	19.0	95.0	70-130%
Dibromochloromethane	20.0	18.5	92.5	65.5-134.5%
Chlorobenzene	20.0	19.7	98.5	72-128%
Ethylbenzene	20.0	20.7	104.	63-137%
Xylenes (Total)	60.0	61.0	102.	36-136%
Bromoform	20.0	18.3	91.5	73.5-126.5%
1,1,2,2-Tetrachloroethane	20.0	18.7	93.5	49-151%
1,3-Dichlorobenzene	20.0	18.5	92.5	49.5-150.5%
1,4-Dichlorobenzene	20.0	19.1	95.5	69.5-130.5%
1,2-Dichlorobenzene	20.0	19.0	95.0	70-130%

Notes:

NEI/GTEL Client ID: OTC010TC01
 Login Number: W7040048
 Project ID (number): 1315-269
 Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

QUALITY CONTROL RESULTS

Volatile Organics
 Method: EPA 8010/8
 Matrix: Aqueous

Laboratory Control Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8010/8020 Units:ug/L		QC Batch:041497GC11-6		
Dichlorodifluoromethane	20.0	26.2	131.	40-160%
Chloromethane	20.0	21.4	107.	10-193%
Vinyl chloride	20.0	23.0	115.	28-163%
Bromomethane	20.0	19.5	97.5	10-144%
Chloroethane	20.0	19.4	97.0	46-137%
Trichlorofluoromethane	20.0	20.4	102.	21-156%
1,1-Dichloroethene	20.0	22.8	114.	28-167%
Methylene chloride	20.0	20.9	105.	25-162%
trans-1,2-Dichloroethene	20.0	20.3	102.	38-155%
1,1-Dichloroethane	20.0	20.6	103.	47-132%
cis-1,2-Dichloroethene	20.0	19.4	97.0	38-155%
Chloroform	20.0	20.6	103.	49-133%
1,1,1-Trichloroethane	20.0	20.8	104.	41-138%
Carbon tetrachloride	20.0	20.9	105.	43-143%
Benzene	20.0	20.6	103.	39-150%
1,2-Dichloroethane	20.0	20.3	102.	51-147%
Trichloroethene	20.0	23.4	117.	35-146%
1,2-Dichloropropane	20.0	20.2	101.	44-156%
Bromodichloromethane	20.0	19.4	97.0	42-172%
2-Chloroethyl vinyl ether	20.0	17.8	89.0	14-186%
cis-1,3-Dichloropropene	20.0	18.6	93.0	22-178%
trans-1,3-Dichloropropene	20.0	18.3	91.5	22-178%
Toluene	20.0	20.8	104.	46-148%
1,1,2-Trichloroethane	20.0	20.1	101.	39-136%
Tetrachloroethene	20.0	21.1	106.	26-162%
Dibromochloromethane	20.0	20.3	102.	24-191%
Chlorobenzene	20.0	19.3	96.5	38-150%
Ethylbenzene	20.0	21.9	110.	32-160%
Xylenes (Total)	60.0	64.3	107.	36-136%
Bromoform	20.0	19.3	96.5	13-159%
1,1,2,2-Tetrachloroethane	20.0	16.0	80.0	10-184%
1,3-Dichlorobenzene	20.0	19.2	96.0	10-187%
1,4-Dichlorobenzene	20.0	20.1	101.	42-143%
1,2-Dichlorobenzene	20.0	19.8	99.0	10-208%

Notes:

NEI/GTEL Wichita, KS
 W7040048:5

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organic

Method: EPA 8010/8

Matrix: Aqueous

Duplicate Sample Results

Analyte	Original Concentration	Duplicate Concentration	RPD. %	Acceptability Limits. %	
EPA 8010/8020 Units: ug/L	QC Batch: 041497GC11-4		GTEL Sample ID: W7040155-20		Client ID: Batch QC
Dichlorodifluoromethane	< 5.00	< 5.00	NA	35.4	
Chloromethane	< 2.00	< 2.00	NA	24.2	
Vinyl chloride	< 1.00	< 1.00	NA	18.6	
Bromomethane	< 2.00	< 2.00	NA	24.8	
Chloroethane	< 1.00	< 1.00	NA	14.4	
Trichlorofluoromethane	< 1.00	< 1.00	NA	19.6	
1,1-Dichloroethene	< 1.00	< 1.00	NA	21.6	
Methylene chloride	2.13	2.62	20.6	40.0	
trans-1,2-Dichloroethene	< 1.00	< 1.00	NA	20.9	
1,1-Dichloroethane	< 1.00	< 1.00	NA	10.5	
cis-1,2-Dichloroethene	4.11	4.10	0.244	20.9	
Chloroform	< 1.00	< 1.00	NA	14.7	
1,1,1-Trichloroethane	< 1.00	< 1.00	NA	16	
Carbon tetrachloride	< 1.00	< 1.00	NA	18.3	
1,2-Dichloroethane	< 1.00	< 1.00	NA	17	
Trichloroethene	32.1	31.8	0.939	13.7	
1,2-Dichloropropane	< 1.00	< 1.00	NA	17	
Bromodichloromethane	< 1.00	< 1.00	NA	13.1	
2-Chloroethyl vinyl ether	< 1.00	< 1.00	NA	27.1	
cis-1,3-Dichloropropene	< 1.00	< 1.00	NA	23.8	
trans-1,3-Dichloropropene	< 1.00	< 1.00	NA	23.8	
1,1,2-Trichloroethane	< 1.00	< 1.00	NA	12.8	
Tetrachloroethene	7.93	7.83	1.27	17.7	
Dibromochloromethane	< 1.00	< 1.00	NA	20.6	
Chlorobenzene	< 1.00	< 1.00	NA	16.4	
Bromoform	< 2.00	< 2.00	NA	15.4	
1,1,2,2-Tetrachloroethane	< 1.00	< 1.00	NA	30	
1,3-Dichlorobenzene	< 1.00	< 1.00	NA	29.7	
1,4-Dichlorobenzene	< 1.00	< 1.00	NA	18	
1,2-Dichlorobenzene	< 1.00	< 1.00	NA	18	

Notes:

NA - The concentration of the analyte is less than the reporting limit.

NEI/GTEL Wichita, KS

W7040048:6

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040048

Volatile Organics

Project ID (number): 1315-269

Method: EPA 8010/8

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Matrix Spike(MS) Results

GTEL Sample ID:W7040048-05

MS ID:MS04004805

Analysis Date: 14-APR-97

15-APR-97

Units: ug/L	Sample	Spike	MS	MS	Acceptability Limits
Analyte	Conc.	Added	Conc.	% Rec.	%Rec.
Dichlorodifluoromethane	< 5.0 (0.000)	20.0	21.3	107.	40-160
Chloromethane	< 2.0 (0.000)	20.0	20.0	100.	10-193
Vinyl chloride	< 1.0 (0.000)	20.0	20.2	101.	28-163
Bromomethane	< 2.0 (0.000)	20.0	17.7	88.5	10-144
Chloroethane	< 1.0 (0.000)	20.0	17.5	87.5	46-137
Trichlorofluoromethane	< 1.0 (0.000)	20.0	17.2	86.0	21-156
1,1-Dichloroethene	< 1.0 (0.000)	20.0	21.2	106.	28-167
Methylene chloride	< 1.0 (0.000)	20.0	19.4	97.0	25-162
trans-1,2-Dichloroethene	< 1.0 (0.000)	20.0	18.6	93.0	38-155
1,1-Dichloroethane	< 1.0 (0.000)	20.0	19.4	97.0	47-132
cis-1,2-Dichloroethene	< 1.0 (0.000)	20.0	18.6	93.0	38-155
Chloroform	< 1.0 (0.000)	20.0	19.5	97.5	49-133
1,1,1-Trichloroethane	< 1.0 (0.000)	20.0	19.1	95.5	41-138
Carbon tetrachloride	< 1.0 (0.000)	20.0	18.7	93.5	43-143
Benzene	< 0.50(0.000)	20.0	19.4	97.0	39-150
1,2-Dichloroethane	< 1.0 (0.000)	20.0	19.7	98.5	51-147
Trichloroethene	< 1.0 (0.000)	20.0	18.8	94.0	35-146
1,2-Dichloropropane	< 1.0 (0.000)	20.0	19.6	98.0	44-156
Bromodichloromethane	< 1.0 (0.000)	20.0	18.6	93.0	42-172
2-Chloroethyl vinyl ether	< 1.0 (0.000)	20.0	0.00	0.00*	14-186
cis-1,3-Dichloropropene	< 1.0 (0.000)	20.0	17.8	89.0	22-178
trans-1,3-Dichloropropene	< 1.0 (0.000)	20.0	17.4	87.0	22-178
Toluene	< 1.0 (0.000)	20.0	19.2	96.0	46-148
1,1,2-Trichloroethane	< 1.0 (0.000)	20.0	19.4	97.0	39-136
Tetrachloroethene	< 1.0 (0.000)	20.0	18.5	92.5	26-162
Dibromochloromethane	< 1.0 (0.000)	20.0	18.8	94.0	24-191
Chlorobenzene	< 1.0 (0.000)	20.0	18.0	90.0	38-150
Ethylbenzene	< 1.0 (0.000)	20.0	19.8	99.0	32-160
Xylenes (Total)	< 1.0 (0.000)	60.0	58.4	97.3	36-136
Bromoform	< 2.0 (0.000)	20.0	18.1	90.5	13-159
1,1,2,2-Tetrachloroethane	< 1.0 (0.000)	20.0	18.7	93.5	10-184
1,3-Dichlorobenzene	< 1.0 (0.000)	20.0	17.2	86.0	10-187
1,4-Dichlorobenzene	< 1.0 (0.000)	20.0	16.5	82.5	42-143
1,2-Dichlorobenzene	< 1.0 (0.000)	20.0	18.3	91.5	10-208

Notes:

Values in parentheses in the sample concentration column are used for % recovery calculations.

041497GC11-5: 2-Chloroethylvinyl ether decomposes in the presence of Hydrochloric Acid (used as a preservative).

NEI/GTEL Wichita, KS
W7040048:7

NEI/GTEL

ENVIRONMENTAL LABORATORIES, INC.

4211 MAY STREET

WICHITA, KS 67209

(316) 945-2624

(800) 633-7936

Company Name:

Phone #: 210 731-0000

OPTech H

FAX #: 210 731-0008

Company Address:

Site Location:

4100 NW Loop 410 #230

CAPITAL Airport

San Antonio, TX 78229

Client Project ID: (#) 1315-269

Project Manager:

(NAME)

K. Pritchett

Joe Byrd, Jr

I attest that the proper field sampling procedures were used during the collection of these samples.

Sampler Name (Print):

Field Sample ID	GTEL Lab # (Lab Use) only	# CONTAINERS	Matrix					Method Preserved						Sampling	
			WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	HCl	HNO ₃	H ₂ SO ₄	ICE	UNPRE-SERVED	OTHER (Specify)	DATE	TIME
Field BLANK	20 01	3	✓						✓					4/2/97	0850
Field BLANK	20 02	1	✓						✓					"	0850
Bailer Rinseate	20 03	3	✓						✓					"	0855
Bailer Rinseate	20 04	1	✓						✓					"	0855
MW-104	20 05	3	✓						✓					"	1100
MW-104	20 06	1	✓						✓					"	1100
MW-103	20 07	3	✓						✓					"	0955
MW-103	20 08	1	✓						✓					"	0955
W															

TAT

☐ Priority (24 hr)
☐ Expedited (48 hr)
☐ 7 Business Days
☒ Other

Special Handling

GTEL Contact

Quote/Contract #

Confirmation #

P.O. #

QA/QC Level

Other

Blue

CLP

Other

Relinquished by Sampler:

Relinquished by:

Relinquished by:

Joe Byrd, Jr

Joe Byrd, Jr

Joe Byrd, Jr

Date

Time

4/2/97

1500

Date

Time

4/3/97

0800

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

1 of 2

50582

ANALYSIS REQUEST

BTX/Gas Hydrocarbons PID/FID

with MTBE

BTX 602

8020

with MTBE

Hydrocarbons GC/FID Gas

Diesel

Screen

Oil and Grease 413.1

413.2

SM-503

TPH/IR 418.1

SM 503

EDB by 504

DBCP by 504

EPA 524.2

503.1

EPA 502.2

EPA 601

EPA 8010

EPA 602

EPA 8020

EPA 608

8080

PCB only

EPA 624/PPL

8240/TAL

NBS (+15)

8260

EPA 625/PPL

8270/TAL

NBS (+25)

EPA 610

8310

EP TOX Metals

Pesticides

Herbicides

TCLP Metals

VOA

Semi-VOA

Pest

Herb

EPA Metals

Priority Pollutant

TAL

RCRA

CAM Metals

TCLC

STLC

Lead 239.2

200.7

7420

7421

6010

Organic Lead

Corrosivity

Flash Point

Reactivity

REMARKS:

FED-EX AIRBILL:

797 0018792

2nd Confirmation on VOC Detection

Lab Use Only Lot #:

Storage Location

Work Order #:

Received by:

Received by:

Received by Laboratory:



FAX: (516) 625-1274

CLIENT RETAINS YELLOW COPY ONLY

Priority Pollution on per analysis in December and continued

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 1 of 2 50582

4211 MAY STREET WICHITA, KS 67209 (316) 945-2624 (800) 833-7936

Company Name: OPTech H Phone #: 710 731-6000 FAX #: 710 731-0008 Site Location: 4100 NW Loop 410-2230 SAN ANTONIO, TX 78229 Client Project ID: (01315)-229 Project Manager: K. Patchell

I attest that the proper field sampling procedures were used during the collection of these samples.

Table with columns: Field Sample ID, GTEL Lab #, Matrix, Method Preserved, Sampling, and a large grid for analysis results.

REMARKS: FED ex AIRBILL: PPM - SW846-6010/ 797 0018792 2nd Confirmation on VOC Detection since Lab Use Only Lot #:

SPECIAL DETECTION LIMITS SPECIAL REPORTING REQUIREMENTS

Work Order #: AMENDED

CUSTODY RECORD section with fields for Date, Time, Received by, and various checkboxes.

Chain of Custody Record

page # of 2

Client Name • <u>QPTech</u> Address <u>4100 NW Loop 410, #230</u> <u>San Antonio, TX 78229</u>				Project Manager <u>K. Pritchett</u> Phone <u>210 731-0000</u> FAX <u>210 731-0008</u> Project Name <u>CAPITAL AIRPORT</u> Project Number <u>1315-269</u> P.O. # <u>05 99</u> Analytical Protocol <u>Level 3 Deliverables 14 day</u> Sampled By <u>Joe Byrd, Jr</u>				Analysis Requested <u>VOC SW 8010/8020</u> <u>PPM SW 6010/700</u> <u>2/12/97</u>				Lab Use Only Log in #: _____ Ship to: <u>Nytest Environmental Inc.</u> <u>60 Scaview Blvd</u> <u>Port Washington N.Y. 11050</u> Attn.: Sample Control Date Shipped: _____ Carrier: _____ Air Bill #: _____ Cooler #: _____ C of C #: _____ SDG #: _____ NEI QT #: _____ Comments			
No. of Containers				Bin #/s In/Out (For Lab Use Only)				Lab Use Only Custody Seals: <u>AMENDED</u> <u>COC</u> Sample Rec'd in Good Condition? <u>Y</u> Sample Temperature: _____ Degrade Status _____ INSPECTED BY: _____ COMMENTS: _____							
Sample ID (Maximum of 6 Characters)		Date Sampled		Time Sampled		Sample Description		Date / Time		Received by:					
M N - 1 0 2		4/12/97		0925		Groundwater		4/14/97		1500					
M W - 1 0 2		11		0925		"									
M W - 1 0 1		11		1125		"									
M W - 1 0 1		11		1125		"									
T B N K 1 2		3/12/97		1500		TRIP BLANK #12									
T E M P B K 11		11		11		Temperature Blank									
Requisitioned by: <u>Joe Byrd Jr</u> Print Name: <u>Joe Byrd Jr</u> Requisitioned by: _____ Print Name: _____ Requisitioned by: _____ Print Name: _____															
Special Instructions: <u>FEDER AIRBILL: 7970018792</u> <u>2 day Confirmation on VOC Detection</u>															



Midwest Region

4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

April 22, 1997

Kathryn Pritchett
Operational Technologies Corp.
4100 N.W. Loop 410
Suite 230
San Antonio, TX 78229

RE: NEI/GTEL Client ID:	OTC010TC01
Login Number:	W7040048
Project ID (number):	1315-269
Project ID (name):	OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Dear Kathryn Pritchett:

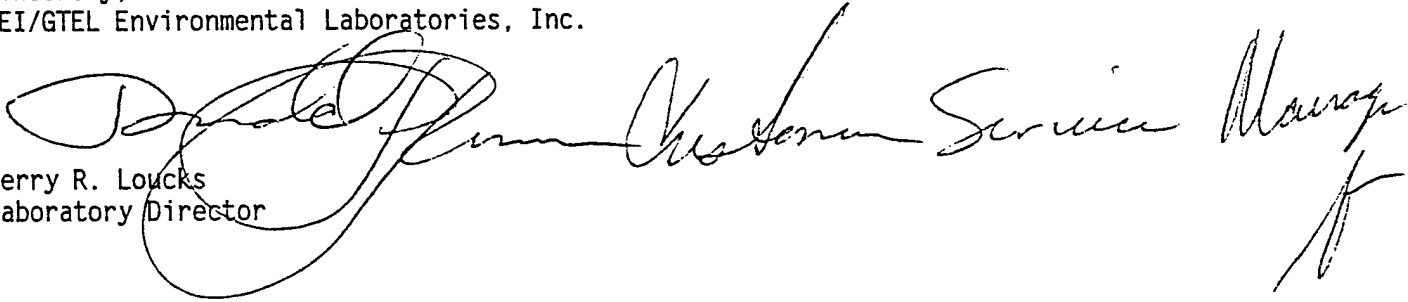
Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 04/03/97 under Chain-of-Custody Number(s) 50582.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the State of Kansas under Certification Numbers E-10103.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
NEI/GTEL Environmental Laboratories, Inc.


Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 524.2

Matrix: Aqueous

NEI/GTEL Sample Number	W7040048-08	W7040048-09	W7040048-10	--
Client ID	FIELD BLANK	BAILER RINSE	MW-104	--
Date Sampled	04/02/97	04/02/97	04/02/97	--
Date Analyzed	04/15/97	04/15/97	04/15/97	--
Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting Limit	Units	Concentration:			
Dichlorodifluoromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Chloromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Bromomethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Vinyl chloride	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Chloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Trichlorofluoromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,1-Dichloroethene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
trans-1,2-Dichloroethene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,1-Dichloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
2,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
cis-1,2-Dichloroethene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Chloroform	0.5	ug/L	1.8	1.7	< 0.5	--
Bromochloromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,1,1-Trichloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,1-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Carbon tetrachloride	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Benzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2-Dichloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Trichloroethene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2-Dichloropropane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Bromodichloromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Dibromomethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
2-Chloroethylvinyl ether	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
cis-1,3-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Toluene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
trans-1,3-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,1,2-Trichloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2-Dibromoethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Tetrachloroethene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,3-Dichloropropane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Dibromochloromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Chlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Ethylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,1,1,2-Tetrachloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
m-p-Xylene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
o-Xylene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Styrene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Bromoform	0.5	ug/L	< 0.5	< 0.5	< 0.5	--

NEI/GTEL Wichita, KS

W7040048

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01
Login Number: W7040048
Project ID (number): 1315-269
Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 524.2
Matrix: Aqueous

NEI/GTEL Sample Number	W7040048-08	W7040048-09	W7040048-10	--
Client ID	FIELD BLANK	BAILER RINSE	MW-104	--
Date Sampled	04/02/97	04/02/97	04/02/97	--
Date Analyzed	04/15/97	04/15/97	04/15/97	--
Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting Limit	Units	Concentration:			
Isopropylbenzene	0.5	ug/L	< 0.5	< 0.5	11.	--
1,1,2,2-Tetrachloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2,3-Trichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
n-Propylbenzene	0.5	ug/L	< 0.5	< 0.5	8.7	--
Bromobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,3,5-Trimethylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
2-Chlorotoluene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
4-Chlorotoluene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
tert-Butylbenzene	0.5	ug/L	< 0.5	< 0.5	1.4	--
1,2,4-Trimethylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
sec-Butylbenzene	0.5	ug/L	< 0.5	< 0.5	3.5	--
p-Isopropyltoluene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,3-Dichlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,4-Dichlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
n-Butylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2-Dichlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2-Dibromo-3-chloropropane	2.0	ug/L	< 2.0	< 2.0	< 2.0	--
1,2,4-Trichlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Hexachlorobutadiene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Naphthalene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2,3-Trichlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 524.2:

Methods for the Determination of Organic Compounds in Drinking Water, Rev. 4.0, USEPA 1992.

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040048

Volatile Organics

Project ID (number): 1315-269

Method: EPA 524.2

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	DBFM	TOL-d8	4-BFB
Method: EPA 524.2	Acceptability Limits:		70-130%	70-130%	70-130%
041497HP4-1	BW041497HP4	Method Blank Water	105.	97.9	95.0
041497HP4-2	LW041497HP4	Laboratory Control	105.	100.	99.8
041497HP4-3	BW041597HP4	Method Blank Water	112.	94.9	87.6
041497HP4-4	LW041597HP4	Laboratory Control	109.	99.3	91.2
--	04004808	FIELD BLANK	122.	91.1	86.2
--	04004809	BAILER RINSE	111.	94.9	87.7
--	04004810	MW-104	110.	101.	104.

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

NEI/GTEL Wichita, KS

W7040048:2

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organics

Method: EPA 524.2

Matrix: Aqueous

Method Blank Results

Bromobenzene	< 0.500	< 0.500
1,3,5-Trimethylbenzene	< 0.500	< 0.500
2-Chlorotoluene	< 0.500	< 0.500
4-Chlorotoluene	< 0.500	< 0.500
tert-Butylbenzene	< 0.500	< 0.500
1,2,4-Trimethylbenzene	< 0.500	< 0.500
sec-Butylbenzene	< 0.500	< 0.500
p-Isopropyltoluene	< 0.500	< 0.500
1,3-Dichlorobenzene	< 0.500	< 0.500
1,4-Dichlorobenzene	< 0.500	< 0.500
n-Butylbenzene	< 0.500	< 0.500
1,2-Dichlorobenzene	< 0.500	< 0.500
1,2-Dibromo-3-chloropropane	< 0.500	< 0.500
1,2,4-Trichlorobenzene	< 0.500	< 0.500
Hexachlorobutadiene	< 0.500	< 0.500
Naphthalene	< 0.500	< 0.500
1,2,3-Trichlorobenzene	< 0.500	< 0.500

Notes:

Limits based on laboratory practice i.e. provisional limits.

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organic

Method: EPA 524.2

Matrix: Aqueous

Laboratory Control Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 524.2	Units:ug/L	QC Batch:041497HP4-2		
Vinyl chloride	2.00	2.04	102.	70-130%
1,1-Dichloroethene	2.00	1.97	98.5	70-130%
trans-1,2-Dichloroethene	2.00	1.97	98.5	70-130%
1,1-Dichloroethane	2.00	2.00	100.	70-130%
cis-1,2-Dichloroethene	2.00	1.97	98.5	70-130%
Chloroform	2.00	1.97	98.5	70-130%
1,1,1-Trichloroethane	2.00	1.93	96.5	70-130%
Carbon tetrachloride	2.00	1.80	90.0	70-130%
Benzene	2.00	1.95	97.5	70-130%
1,2-Dichloroethane	2.00	1.80	90.0	70-130%
Trichloroethene	2.00	1.94	97.0	70-130%
Toluene	2.00	2.09	105.	70-130%
1,1,2-Trichloroethane	2.00	1.98	99.0	70-130%
1,2-Dibromoethane	2.00	1.97	98.5	70-130%
Tetrachloroethene	2.00	1.90	95.0	70-130%
Chlorobenzene	2.00	2.14	107.	70-130%
Ethylbenzene	2.00	2.17	109.	70-130%
m+p-Xylene	4.00	4.76	119.	70-130%
o-Xylene	2.00	2.18	109.	70-130%
Styrene	2.00	2.10	105.	70-130%
1,4-Dichlorobenzene	2.00	2.32	116.	70-130%
1,2-Dichlorobenzene	2.00	2.36	118.	70-130%
1,2-Dibromo-3-chloropropane	2.00	2.69	135.*	70-130%
1,2,4-Trichlorobenzene	2.00	2.20	110.	70-130%
EPA 524.2	Units:ug/L	QC Batch:041497HP4-4		
Vinyl chloride	2.00	2.10	105.	70-130%
1,1-Dichloroethene	2.00	2.17	109.	70-130%
trans-1,2-Dichloroethene	2.00	2.15	108.	70-130%
1,1-Dichloroethane	2.00	2.13	107.	70-130%
cis-1,2-Dichloroethene	2.00	2.21	111.	70-130%
Chloroform	2.00	2.05	103.	70-130%
1,1,1-Trichloroethane	2.00	1.95	97.5	70-130%
Carbon tetrachloride	2.00	1.78	89.0	70-130%
Benzene	2.00	2.06	103.	70-130%
1,2-Dichloroethane	2.00	1.74	87.0	70-130%
Trichloroethene	2.00	1.97	98.5	70-130%
Toluene	2.00	2.06	103.	70-130%
1,1,2-Trichloroethane	2.00	1.85	92.5	70-130%
1,2-Dibromoethane	2.00	1.84	92.0	70-130%
Tetrachloroethene	2.00	1.87	93.5	70-130%
Chlorobenzene	2.00	2.09	105.	70-130%
Ethylbenzene	2.00	2.17	109.	70-130%

NEI/GTEL Wichita, KS

W7040048:5

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040048

Volatile Organics

Project ID (number): 1315-269

Method: EPA 524.2

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Laboratory Control Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
m+p-Xylene	4.00	4.59	115.	70-130%
o-Xylene	2.00	2.03	102.	70-130%
Styrene	2.00	1.94	97.0	70-130%
1,4-Dichlorobenzene	2.00	2.12	106.	70-130%
1,2-Dichlorobenzene	2.00	2.11	106.	70-130%
1,2-Dibromo-3-chloropropane	2.00	1.71	85.5	70-130%
1,2,4-Trichlorobenzene	2.00	2.13	107.	70-130%

Notes:

Limits based on laboratory practice i.e. provisional limits.

NEI/GTEL Wichita, KS

W7040048:6

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organics

Method: EPA 524.2

Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met

* = See Comments

-- = Not Required

NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	--	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	*	--	--
Method Precision	--	--	--
Blank Contamination	X	--	--

Comments:



Midwest Region

4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

December 31, 1996

Kathryn Pritchett
Operational Technologies Corp.
4100 N.W. Loop 410
Suite 230
San Antonio, TX 78229

RE: GTEL Client ID:	OTC010TC01
Login Number:	W6120301
Project ID (number):	1315-269-4A
Project ID (name):	CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Dear Kathryn Pritchett:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 12/18/96.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the State of Kansas under Certification Numbers E-103, E-1113.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Justin Ward, Project Coordinator for
Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: OTC010TC01
Login Number: W6120301
Project ID (number): 1315-269-4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: See Below
Matrix: Aqueous

	GTEL Sample Number	W6120301-01	W6120301-02	W6120301-03	W6120301-04
	Client ID	MW 203 MW04	MW 201 GW04	MW 202 GW04	2FB02 FIELD BLANK
	Date Sampled	12/17/96	12/17/96	12/17/96	12/17/96
EPA 6010A	Date Prepared	12/19/96	12/19/96	12/19/96	12/19/96
EPA 6010A	Date Analyzed	12/19/96	12/19/96	12/19/96	12/19/96
EPA 6010A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7041	Date Prepared	12/19/96	12/19/96	12/19/96	12/19/96
EPA 7041	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7041	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7060A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7060A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7060A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7421	Date Prepared	12/19/96	12/19/96	12/19/96	12/19/96
EPA 7421	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7421	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7470A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7470A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7470A	Dilution Factor	2.00	2.00	2.00	2.00
EPA 7740	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7740	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7740	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7841	Date Prepared	12/19/96	12/19/96	12/19/96	12/19/96
EPA 7841	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7841	Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting	Limit	Units	Concentration:
Inorganics (MT, WC)				
Antimony	EPA 7041	10.	ug/L	< 10.
Arsenic	EPA 7060A	10.	ug/L	< 10.
Beryllium	EPA 6010A	5.0	ug/L	< 5.0
Cadmium	EPA 6010A	20.	ug/L	< 20.
Chromium	EPA 6010A	30.	ug/L	< 30.
Copper	EPA 6010A	25.	ug/L	< 25.
Lead	EPA 7421	4.0	ug/L	9.6
Mercury	EPA 7470A	0.50	ug/L	< 1.0
Nickel	EPA 6010A	40.	ug/L	< 40.
Selenium	EPA 7740	10.	ug/L	< 10.
Silver	EPA 6010A	20.	ug/L	< 20.
Thallium	EPA 7841	10.	ug/L	< 10.
Zinc	EPA 6010A	20.	ug/L	59.

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W6120301

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: OTC010TC01
Login Number: W6120301
Project ID (number): 1315-269-4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: See Below
Matrix: Aqueous

GTEL Sample Number	W6120301-01	W6120301-02	W6120301-03	W6120301-04
Client ID	MW 203 MW04	MW 201 GW04	MW 202 GW04	2FB02 FIELD BLANK
Date Sampled	12/17/96	12/17/96	12/17/96	12/17/96
Date Prepared	12/19/96	12/19/96	12/19/96	12/19/96
Date Analyzed	12/19/96	12/19/96	12/19/96	12/19/96
Dilution Factor	1.00	1.00	1.00	1.00
EPA 6010A				
Date Prepared	12/19/96	12/19/96	12/19/96	12/19/96
Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
Dilution Factor	1.00	1.00	1.00	1.00
EPA 7041				
Date Prepared	12/19/96	12/19/96	12/19/96	12/19/96
Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
Dilution Factor	1.00	1.00	1.00	1.00
EPA 7060A				
Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
Dilution Factor	1.00	1.00	1.00	1.00
EPA 7421				
Date Prepared	12/19/96	12/19/96	12/19/96	12/19/96
Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
Dilution Factor	1.00	1.00	1.00	1.00
EPA 7470A				
Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
Dilution Factor	2.00	2.00	2.00	2.00
EPA 7740				
Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
Dilution Factor	1.00	1.00	1.00	1.00
EPA 7841				
Date Prepared	12/19/96	12/19/96	12/19/96	12/19/96
Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
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EPA 7421, EPA 7841:

Digestion for Total Metals by EPA Method 3020A.

Digestion for Total Metals by EPA Method 3020A.

EPA 7060A, EPA 7740:

Digestion by EPA Method 7060.

EPA 7470A:

Digestion is method specific.

EPA 6010A, EPA 7041, EPA 7060A, EPA 7421, EPA 7470A, EPA 7740, EPA 7841:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 2.

ANALYTICAL RESULTS

Volatile Organics

GTEL Client ID: OTC010TC01
 Login Number: W6120301
 Project ID (number): 1315-269-4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020

Matrix: Aqueous

GTEL Sample Number	W6120301-01	W6120301-02	W6120301-03	W6120301-04
Client ID	MW 203 MW04	MW 201 GW04	MW 202 GW04	2FB02 FIELD BLANK
Date Sampled	12/17/96	12/17/96	12/17/96	12/17/96
Date Analyzed	12/22/96	12/22/96	12/22/96	12/21/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:			
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	4.6	< 1.0
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	2.7	< 1.0
Chloroform	1.0	ug/L	< 1.0	< 1.0	< 1.0	49.
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	0.5	ug/L	< 0.5	< 0.5	0.8	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	16.
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	3.9
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	2.3	< 1.0
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	1.1	< 1.0
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:
 NEI/GTEL Wichita, KS
 W6120301

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120301
Project ID (number): 1315-269-4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
Matrix: Aqueous

GTEL Sample Number	W6120301-01	W6120301-02	W6120301-03	W6120301-04
Client ID	MW 203 MW04	MW 201 GW04	MW 202 GW04	2FB02 FIELD BLANK
Date Sampled	12/17/96	12/17/96	12/17/96	12/17/96
Date Analyzed	12/22/96	12/22/96	12/22/96	12/21/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SW-846. Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
 Login Number: W6120301
 Project ID (number): 1315-269-4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
 Matrix: Aqueous

GTEL Sample Number	W6120301-05	--	--	--
Client ID	TB-11	--	--	--
Date Sampled		--	--	--
Date Analyzed	12/21/96	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:
Dichlorodifluoromethane	5.0	ug/L	< 5.0
Chloromethane	2.0	ug/L	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0
Bromomethane	2.0	ug/L	< 2.0
Chloroethane	1.0	ug/L	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0
Methylene chloride	1.0	ug/L	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0
Chloroform	1.0	ug/L	< 1.0
1,1,1-Trichloroethane	1.0	ug/L	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0
Benzene	0.5	ug/L	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 1.0
Trichloroethene	1.0	ug/L	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0
Toluene	1.0	ug/L	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0
Chlorobenzene	1.0	ug/L	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0
Xylenes (total)	1.0	ug/L	< 1.0
Bromoform	2.0	ug/L	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:
 NEI/GTEL Wichita, KS
 W6120301

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01

Login Number: W6120301

Project ID (number): 1315-269-4A

Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020

Matrix: Aqueous

GTEL Sample Number	W6120301-05	--	--	--
Client ID	TB-11	--	--	--
Date Sampled		--	--	--
Date Analyzed	12/21/96	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120301
Project ID (number): 1315-269-4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 524.2
Matrix: Aqueous

GTEL Sample Number	W6120301-03	W6120301-04	--	--
Client ID	MW 202 GW04 2FB02	FIELD BLANK	--	--
Date Sampled	12/17/96	12/17/96	--	--
Date Analyzed	12/26/96	12/26/96	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:			
Dichlorodifluoromethane	0.5	ug/L	< 0.5	< 0.5	--	--
Chloromethane	0.5	ug/L	< 0.5	< 0.5	--	--
Bromomethane	1.0	ug/L	< 1.0	< 1.0	--	--
Vinyl chloride	0.5	ug/L	3.5	< 0.5	--	--
Chloroethane	0.5	ug/L	< 0.5	< 0.5	--	--
Trichlorofluoromethane	0.5	ug/L	< 0.5	< 0.5	--	--
1,1-Dichloroethene	0.5	ug/L	< 0.5	< 0.5	--	--
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	--	--
MTBE	0.5	ug/L	< 0.5	< 0.5	--	--
trans-1,2-Dichloroethene	0.5	ug/L	< 0.5	< 0.5	--	--
1,1-Dichloroethane	0.5	ug/L	< 0.5	< 0.5	--	--
2,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	--	--
cis-1,2-Dichloroethene	0.5	ug/L	2.1	< 0.5	--	--
Chloroform	0.5	ug/L	< 0.5	44.	--	--
Bromochloromethane	0.5	ug/L	< 0.5	< 0.5	--	--
1,1,1-Trichloroethane	0.5	ug/L	< 0.5	< 0.5	--	--
1,1-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	--	--
Carbon tetrachloride	0.5	ug/L	< 0.5	< 0.5	--	--
Benzene	0.5	ug/L	< 0.5	< 0.5	--	--
1,2-Dichloroethane	0.5	ug/L	< 0.5	< 0.5	--	--
Trichloroethene	0.5	ug/L	< 0.5	< 0.5	--	--
1,2-Dichloropropane	0.5	ug/L	< 0.5	< 0.5	--	--
Bromodichloromethane	0.5	ug/L	< 0.5	12.	--	--
Dibromomethane	0.5	ug/L	< 0.5	< 0.5	--	--
2-Chloroethylvinyl ether	0.5	ug/L	< 0.5	< 0.5	--	--
cis-1,3-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	--	--
Toluene	0.5	ug/L	< 0.5	< 0.5	--	--
trans-1,3-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	--	--
1,1,2-Trichloroethane	0.5	ug/L	< 0.5	< 0.5	--	--
1,2-Dibromoethane	0.5	ug/L	< 0.5	< 0.5	--	--
Tetrachloroethene	0.5	ug/L	< 0.5	< 0.5	--	--
1,3-Dichloropropane	0.5	ug/L	< 0.5	< 0.5	--	--
Dibromochloromethane	0.5	ug/L	< 0.5	3.6	--	--
Chlorobenzene	0.5	ug/L	< 0.5	< 0.5	--	--
Ethylbenzene	0.5	ug/L	< 0.5	< 0.5	--	--
1,1,1,2-Tetrachloroethane	0.5	ug/L	< 0.5	< 0.5	--	--
m+p-Xylene	0.5	ug/L	< 0.5	< 0.5	--	--
o-Xylene	0.5	ug/L	< 0.5	< 0.5	--	--
Styrene	0.5	ug/L	< 0.5	< 0.5	--	--

NEI/GTEL Wichita, KS
W6120301

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120301
Project ID (number): 1315-269-4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 524.2
Matrix: Aqueous

GTEL Sample Number	W6120301-03	W6120301-04	..	..
Client ID	MW 202 GW04	2FB02 FIELD BLANK	..	..
Date Sampled	12/17/96	12/17/96	..	..
Date Analyzed	12/26/96	12/26/96	..	..
Dilution Factor	1.00	1.00	..	..

Analyte	Reporting		Concentration:			
	Limit	Units				
Bromoform	0.5	ug/L	< 0.5	< 0.5	--	--
Isopropylbenzene	0.5	ug/L	< 0.5	< 0.5	--	--
1,1,2,2-Tetrachloroethane	0.5	ug/L	< 0.5	< 0.5	--	--
1,2,3-Trichloropropane	1.0	ug/L	< 1.0	< 1.0	--	--
n-Propylbenzene	0.5	ug/L	< 0.5	< 0.5	--	--
Bromobenzene	0.5	ug/L	< 0.5	< 0.5	--	--
1,3,5-Trimethylbenzene	0.5	ug/L	1.3	< 0.5	--	--
2-Chlorotoluene	0.5	ug/L	< 0.5	< 0.5	--	--
4-Chlorotoluene	0.5	ug/L	< 0.5	< 0.5	--	--
tert-Butylbenzene	0.5	ug/L	< 0.5	< 0.5	--	--
1,2,4-Trimethylbenzene	0.5	ug/L	< 0.5	< 0.5	--	--
sec-Butylbenzene	0.5	ug/L	< 0.5	< 0.5	--	--
p-Isopropyltoluene	0.5	ug/L	< 0.5	< 0.5	--	--
1,3-Dichlorobenzene	0.5	ug/L	< 0.5	< 0.5	--	--
1,4-Dichlorobenzene	0.5	ug/L	< 0.5	< 0.5	--	--
n-Butylbenzene	0.5	ug/L	< 0.5	< 0.5	--	--
1,2-Dichlorobenzene	0.5	ug/L	< 0.5	< 0.5	--	--
1,2-Dibromo-3-chloropropane	2.0	ug/L	< 2.0	< 2.0	--	--
1,2,4-Trichlorobenzene	0.5	ug/L	< 0.5	< 0.5	--	--
Hexachlorobutadiene	1.0	ug/L	< 1.0	< 1.0	--	--
Naphthalene	0.5	ug/L	< 0.5	< 0.5	--	--
1,2,3-Trichlorobenzene	0.5	ug/L	< 0.5	< 0.5	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 524.2:

Methods for the Determination of Organic Compounds in Drinking Water, Rev. 2.0, USEPA 1989

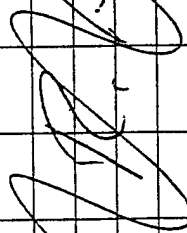


(516) 625-5500
FAX: (516) 625-1274

Chain of Custody Record

page #: _____ of _____

Client Name <u>OPTECH</u>		Address <u>4100 N.W. LOOP 410, Ste 230</u> <u>SAN ANTONIO, TEXAS 78229</u>	
Project Manager Phone <u>(210) 731-0000</u> FAX <u>(210) 731-0008</u>		Project Name <u>CAPITOL AIRPORT - ILLINOIS ANG</u>	
Project Number <u>1315-269/4A</u>		P.O. #	
Analytical Protocol <u>Deliverables</u>		Sampled By <u>RUDY ARREDONDO & JOE BYRD</u>	

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Description
1	MW203	12/17/96	0930	GNW04
2	MW201	12/17/96	1045	GNW04
3	MW202	12/17/96	1150	GNW04
4	2FB02	12/17/96	1000	FIELD BLANK
5	7B-11	12/14/96	-	TRIP BLANK
				

W6120301

Relinquished by: Rudy Arredondo
Print Name: RUDY ARREDONDO
Relinquished by:
Print Name:
Relinquished by:
Print Name:

Received by:
Print Name:
Received by:
Print Name:
Received by Laboratory:
Print Name:

Special Instructions: NOTE: 2ND CONFIRMATION ON VOCs

AIR BILL # 7494583110

CLIENT RETAINS YELLOW COPY ONLY

[illegible]



Midwest Region

4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

January 14, 1997

Kathryn Pritchett
Operational Technologies Corp.
4100 N.W. Loop 410
Suite 230
San Antonio, TX 78229

RE: NEI/GTEL Client ID:	OTC010TC01
Login Number:	W6120326
Project ID (number):	1315-269/4A
Project ID (name):	CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Dear Kathryn Pritchett:

Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 12/19/96.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the State of Kansas under Certification Numbers E-103, E-1113.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
NEI/GTEL Environmental Laboratories, Inc.

A.E. Denty project coordinator

Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W6120326

Project ID (number): 1315-269/4A

Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 524.2

Matrix: Aqueous

NEI/GTEL Sample Number	W6120326-10	W6120326-11	W6120326-12	W6120326-13
Client ID	DCOND7	DCOND8	MW-201B	MW-202A
Date Sampled	12/18/96	12/18/96	12/18/96	12/18/96
Date Analyzed	01/08/97	01/08/97	01/09/97	01/09/97
Dilution Factor	1.00	1.00	1.00	10.0

Analyte	Reporting		Concentration:			
	Limit	Units				
Vinyl chloride	0.5	ug/L	--	--	--	52.
trans-1,2-Dichloroethene	0.5	ug/L	--	--	--	< 5.0
cis-1,2-Dichloroethene	0.5	ug/L	--	--	6.0	110
Benzene	0.5	ug/L	< 0.5	--	--	< 5.0
1,2-Dichloroethane	0.5	ug/L	--	--	--	< 5.0
Trichloroethene	0.5	ug/L	--	--	--	< 5.0
Toluene	0.5	ug/L	2.4	1.1	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 524.2:

Methods for the Determination of Organic Compounds in Drinking Water, Rev. 2.0, USEPA 1989

W6120326-10:

All samples run outside holding time to confirm the GC run.

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W6120326

Project ID (number): 1315-269/4A

Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 524.2

Matrix: Aqueous

NEI/GTEL Sample Number	W6120326-14	--	--	--
Client ID	MW-202B	--	--	--
Date Sampled	12/18/96	--	--	--
Date Analyzed	01/09/97	--	--	--
Dilution Factor	5.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:			
Vinyl chloride	0.5	ug/L	29.	--	--	--
cis-1,2-Dichloroethene	0.5	ug/L	88.	--	--	--
Benzene	0.5	ug/L	< 2.5	--	--	--
1,2-Dichloroethane	0.5	ug/L	< 2.5	--	--	--
Trichloroethene	0.5	ug/L	< 2.5	--	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 524.2:

Methods for the Determination of Organic Compounds in Drinking Water, Rev. 2.0, USEPA 1989

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120326
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
Matrix: Aqueous

GTEL Sample Number	W6120326-01	W6120326-02	W6120326-03	W6120326-04
Client ID	DCOND6	DCOND7	DCOND8	TB-15
Date Sampled	12/18/96	12/18/96	12/18/96	
Date Analyzed	12/23/96	12/22/96	12/22/96	12/23/96
Dilution Factor	10.0	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units				
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	0.5	ug/L	< 5.0	1.3	< 0.5	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	1.0	ug/L	< 1.0	3.4	1.5	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:
NEI/GTEL Wichita, KS
W6120326

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120326
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
Matrix: Aqueous

GTEL Sample Number	W6120326-01	W6120326-02	W6120326-03	W6120326-04
Client ID	DCOND6	DCOND7	DCOND8	TB-15
Date Sampled	12/18/96	12/18/96	12/18/96	
Date Analyzed	12/23/96	12/22/96	12/22/96	12/23/96
Dilution Factor	10.0	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

W6120326-01:

The sample was diluted due to foaming.

ANALYTICAL RESULTS

Volatile Organics

GTEL Client ID: OTC010TC01

Login Number: W6120326

Project ID (number): 1315-269/4A

Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020

Matrix: Aqueous

GTEL Sample Number	W6120326-05	W6120326-06	W6120326-07	W6120326-08
Client ID	MW201B	MW202A	MW202B	2-FB03
Date Sampled	12/18/96	12/18/96	12/18/96	12/18/96
Date Analyzed	12/22/96	12/22/96	12/22/96	12/22/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:			
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0	60.	36.	< 1.0
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	1.2	< 1.0	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	8.3	120	97.	< 1.0
Chloroform	1.0	ug/L	< 1.0	< 1.0	< 1.0	1.2
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	0.5	ug/L	< 0.5	1.3	1.1	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 1.0	2.7	2.3	< 1.0
Trichloroethene	1.0	ug/L	< 1.0	2.6	1.8	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	1.5	< 1.0	< 1.0
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:

NEI/GTEL Wichita, KS

W6120326

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120326
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
Matrix: Aqueous

GTEL Sample Number	W6120326-05	W6120326-06	W6120326-07	W6120326-08
Client ID	MW201B	MW202A	MW202B	2-FB03
Date Sampled	12/18/96	12/18/96	12/18/96	12/18/96
Date Analyzed	12/22/96	12/22/96	12/22/96	12/22/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
Notes: (continued)			

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
 Login Number: W6120326
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
 Matrix: Aqueous

GTEL Sample Number	W6120326-09	--	--	--
Client ID	TB-8	--	--	--
Date Sampled		--	--	--
Date Analyzed	12/23/96	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:			
Dichlorodifluoromethane	5.0	ug/L	< 5.0	--	--	--
Chloromethane	2.0	ug/L	< 2.0	--	--	--
Vinyl Chloride	1.0	ug/L	< 1.0	--	--	--
Bromomethane	2.0	ug/L	< 2.0	--	--	--
Chloroethane	1.0	ug/L	< 1.0	--	--	--
Trichlorofluoromethane	1.0	ug/L	< 1.0	--	--	--
1,1-Dichloroethene	1.0	ug/L	< 1.0	--	--	--
Methylene chloride	1.0	ug/L	< 1.0	--	--	--
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	--	--	--
1,1-Dichloroethane	1.0	ug/L	< 1.0	--	--	--
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	--	--	--
Chloroform	1.0	ug/L	< 1.0	--	--	--
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	--	--	--
Carbon tetrachloride	1.0	ug/L	< 1.0	--	--	--
Benzene	0.5	ug/L	< 0.5	--	--	--
1,2-Dichloroethane	1.0	ug/L	< 1.0	--	--	--
Trichloroethene	1.0	ug/L	< 1.0	--	--	--
1,2-Dichloropropane	1.0	ug/L	< 1.0	--	--	--
Bromodichloromethane	1.0	ug/L	< 1.0	--	--	--
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	--	--	--
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	--	--	--
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	--	--	--
Toluene	1.0	ug/L	< 1.0	--	--	--
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	--	--	--
Tetrachloroethene	1.0	ug/L	< 1.0	--	--	--
Dibromochloromethane	1.0	ug/L	< 1.0	--	--	--
Chlorobenzene	1.0	ug/L	< 1.0	--	--	--
Ethylbenzene	1.0	ug/L	< 1.0	--	--	--
Xylenes (total)	1.0	ug/L	< 1.0	--	--	--
Bromoform	2.0	ug/L	< 2.0	--	--	--
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	--	--	--
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	--	--	--
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	--	--	--
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	--	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:
 NEI/GTEL Wichita, KS
 W6120326

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120326
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
Matrix: Aqueous

GTEL Sample Number	W6120326-09	--	--	--
Client ID	TB-8	--	--	--
Date Sampled		--	--	--
Date Analyzed	12/23/96	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: NYT01NYT01

Login Number: W6120326

Project ID (number): 1315-269/4A

Project ID (name): OPERATIONAL TECHNOLOGIES/4100 NW LOOP 410/SAN ANTONIO/TX

Method: See Below

Matrix: Aqueous

	GTEL Sample Number	W6120326-01	W6120326-02	W6120326-03	W6120326-05
	Client ID	DCOND6	DCOND7	DCOND8	MW201B
	Date Sampled	12/18/96	12/18/96	12/18/96	12/18/96
EPA 6010A	Date Prepared	12/20/96	12/20/96	12/20/96	12/20/96
EPA 6010A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 6010A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7041	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7041	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7041	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7060A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7060A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7060A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7421	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7421	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7421	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7470A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7470A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7470A	Dilution Factor	2.00	2.00	2.00	2.00
EPA 7740	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7740	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7740	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7841	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7841	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7841	Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units				
Inorganics (MT, WC)						
Antimony	EPA 7041	10.	ug/L	< 10.	< 10.	< 10.
Arsenic	EPA 7060A	10.	ug/L	< 10.	< 10.	< 10.
Beryllium	EPA 6010A	5.0	ug/L	< 5.0	< 5.0	< 5.0
Cadmium	EPA 6010A	20.	ug/L	< 20.	< 20.	< 20.
Chromium	EPA 6010A	30.	ug/L	< 30.	< 30.	58.
Copper	EPA 6010A	25.	ug/L	35.	< 25.	75.
Lead	EPA 7421	4.0	ug/L	< 4.0	< 4.0	35.
Mercury	EPA 7470A	0.50	ug/L	< 1.0	< 1.0	< 1.0
Nickel	EPA 6010A	40.	ug/L	< 40.	< 40.	63.
Selenium	EPA 7740	10.	ug/L	< 10.	< 10.	< 10.
Silver	EPA 6010A	20.	ug/L	< 20.	< 20.	< 20.
Thallium	EPA 7841	10.	ug/L	< 10.	< 10.	< 10.
Zinc	EPA 6010A	20.	ug/L	120	< 20.	230

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W6120326

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: NYT01NYT01
Login Number: W6120326
Project ID (number): 1315-269/4A

Project ID (name): OPERATIONAL TECHNOLOGIES/4100 NW LOOP 410/SAN ANTONIO/TX

Method: See Below
Matrix: Aqueous

	GTEL Sample Number	W6120326-01	W6120326-02	W6120326-03	W6120326-05
	Client ID	DCOND6	DCOND7	DCOND8	MW201
	Date Sampled	12/18/96	12/18/96	12/18/96	12/18/96
EPA 6010A	Date Prepared	12/20/96	12/20/96	12/20/96	12/20/96
EPA 6010A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 6010A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7041	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7041	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7041	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7060A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7060A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7060A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7421	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7421	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7421	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7470A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7470A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7470A	Dilution Factor	2.00	2.00	2.00	2.00
EPA 7740	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7740	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7740	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7841	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7841	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7841	Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
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EPA 7421, EPA 7841:

Digestion for Total Metals by EPA Method 3020A.
Digestion for Total Metals by EPA Method 3020A.

EPA 7060A, EPA 7740:

Digestion by EPA Method 7060.

EPA 7470A:

Digestion is method specific.

EPA 6010A, EPA 7041, EPA 7060A, EPA 7421, EPA 7470A, EPA 7740, EPA 7841:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 2.

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: NYT01NYT01

Login Number: W6120326

Project ID (number): 1315-269/4A

Project ID (name): OPERATIONAL TECHNOLOGIES/4100 NW LOOP 410/SAN ANTONIO/TX

Method: See Below

Matrix: Aqueous

	GTEL Sample Number	W6120326-06	W6120326-07	W6120326-08	
	Client ID	MW202A	MW202B	2-FB03	--
	Date Sampled	12/18/96	12/18/96	12/18/96	--
EPA 6010A	Date Prepared	12/20/96	12/20/96	12/20/96	--
EPA 6010A	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 6010A	Dilution Factor	1.00	2.00	1.00	--
EPA 7041	Date Prepared	12/23/96	12/23/96	12/23/96	--
EPA 7041	Date Analyzed	12/27/96	12/27/96	12/27/96	--
EPA 7041	Dilution Factor	1.00	1.00	1.00	--
EPA 7060A	Date Prepared	12/24/96	12/24/96	12/24/96	--
EPA 7060A	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 7060A	Dilution Factor	1.00	1.00	1.00	--
EPA 7421	Date Prepared	12/23/96	12/23/96	12/23/96	--
EPA 7421	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 7421	Dilution Factor	1.00	5.00	1.00	--
EPA 7470A	Date Prepared	12/24/96	12/24/96	12/24/96	--
EPA 7470A	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 7470A	Dilution Factor	2.00	2.00	2.00	--
EPA 7740	Date Prepared	12/24/96	12/24/96	12/24/96	--
EPA 7740	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 7740	Dilution Factor	1.00	1.00	1.00	--
EPA 7841	Date Prepared	12/23/96	12/23/96	12/23/96	--
EPA 7841	Date Analyzed	12/27/96	12/27/96	12/27/96	--
EPA 7841	Dilution Factor	1.00	1.00	1.00	--

Analyte		Reporting Limit	Units	Concentration:	
Antimony	EPA 7041	10.	ug/L	< 10.	--
Arsenic	EPA 7060A	10.	ug/L	39.	--
Beryllium	EPA 6010A	5.0	ug/L	< 10.	--
Cadmium	EPA 6010A	20.	ug/L	< 20.	--
Chromium	EPA 6010A	30.	ug/L	230	--
Copper	EPA 6010A	25.	ug/L	340	--
Lead	EPA 7421	4.0	ug/L	170	--
Mercury	EPA 7470A	0.50	ug/L	< 1.0	--
Nickel	EPA 6010A	40.	ug/L	340	--
Selenium	EPA 7740	10.	ug/L	< 10.	--
Silver	EPA 6010A	20.	ug/L	< 40.	--
Thallium	EPA 7841	10.	ug/L	< 10.	--
Zinc	EPA 6010A	20.	ug/L	940	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W6120326

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: NYT01NYT01

Login Number: W6120326

Project ID (number): 1315-269/4A

Project ID (name): OPERATIONAL TECHNOLOGIES/4100 NW LOOP 410/SAN ANTONIO/TX

Method: See Below

Matrix: Aqueous

	GTEL Sample Number	W6120326-06	W6120326-07	W6120326-08	
	Client ID	MW202A	MW202B	2-FB03	--
	Date Sampled	12/18/96	12/18/96	12/18/96	--
EPA 6010A	Date Prepared	12/20/96	12/20/96	12/20/96	--
EPA 6010A	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 6010A	Dilution Factor	1.00	2.00	1.00	--
EPA 7041	Date Prepared	12/23/96	12/23/96	12/23/96	--
EPA 7041	Date Analyzed	12/27/96	12/27/96	12/27/96	--
EPA 7041	Dilution Factor	1.00	1.00	1.00	--
EPA 7060A	Date Prepared	12/24/96	12/24/96	12/24/96	--
EPA 7060A	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 7060A	Dilution Factor	1.00	1.00	1.00	--
EPA 7421	Date Prepared	12/23/96	12/23/96	12/23/96	--
EPA 7421	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 7421	Dilution Factor	1.00	5.00	1.00	--
EPA 7470A	Date Prepared	12/24/96	12/24/96	12/24/96	--
EPA 7470A	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 7470A	Dilution Factor	2.00	2.00	2.00	--
EPA 7740	Date Prepared	12/24/96	12/24/96	12/24/96	--
EPA 7740	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 7740	Dilution Factor	1.00	1.00	1.00	--
EPA 7841	Date Prepared	12/23/96	12/23/96	12/23/96	--
EPA 7841	Date Analyzed	12/27/96	12/27/96	12/27/96	--
EPA 7841	Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

EPA 7421, EPA 7841:

Digestion for Total Metals by EPA Method 3020A.

Digestion for Total Metals by EPA Method 3020A.

EPA 7060A, EPA 7740:

Digestion by EPA Method 7060.

EPA 7470A:

Digestion is method specific.

EPA 6010A, EPA 7041, EPA 7060A, EPA 7421, EPA 7470A, EPA 7740, EPA 7841:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 2.

Client Name: Optech
Address: 4100 N.W. Loop 410, Suite 230
SAN ANTONIO, TEXAS 78229
Project Manager: KATHYRN PRITCHETT
Phone: (210) 731-0000 FAX: (210) 731-0008
Project Name: CAPITOL AIRPORT - ILLINOIS ANG
Project Number: 1315-269/4A
P.O. #: _____

Analytical Protocol		Deliverables	
Sampled By: <u>KATHYRN PRITCHETT & JERRY CASTILLO</u>			
Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Sample Description
201	DCON	12/18/96	DECON H2O D-6
202	DCON	12/18/96	DECON H2O D-7
203	DCON	12/18/96	DECON H2O D-8
204	TB-15	12/12/96	TRIP BLANK
205			
206			
207			
208			
209			
210			

No. of Containers: (8010/8020) HCL
(6010/7000) PRESERVED W/ HNO3
Analysis Requested: RESERVED W/ HNO3
Bin #'s In/Out (For Lab Use Only): _____
Lab Use Only: _____
Custody Seals: Intact Broken Absent
Sample Rec'd in Good Condition?: Y N
Sample Temperature: 20 Degrees Celsius
INSPECTED BY: [Signature]
COMMENTS: _____
Special Instructions: 2ND CONFIRMATION FOR VOCs
AIR BILL NO. 5344094615
CLIENT RETAINS YELLOW COPY ONLY

SOUSUN
(516) 625-5500 FAX: (516) 625-1274

Special Instructions: 2nd CONFIRMATION FOR VOCs



Midwest Region

4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

January 15, 1997

Kathryn Pritchett
Operational Technologies Corp.
4100 N.W. Loop 410
Suite 230
San Antonio, TX 78229

RE: NEI/GTEL Client ID:	OTC010TC01
Login Number:	W6120352
Project ID (number):	1315-296-4A
Project ID (name):	CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Dear Kathryn Pritchett:

Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 12/20/96.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the State of Kansas under Certification Numbers E-103, E-1113.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
NEI/GTEL Environmental Laboratories, Inc.

Terry R. Loucks

Terry R. Loucks
Laboratory Director

Project Number: 1315-296-4A
 Project Name: Capitol Airport
 ANG
 Springfield, IL
 Work Order Number: W6-12-0352
 Date Reported: 01-15-97

ANALYTICAL RESULTS

Metals in TCLP Leachate^a

GTEL Sample Number		06	07		
Client Identification		IDW1-2 SOIL	IDW3-4 SOIL		
Date Sampled		12-19-96	12-19-96		
Date Leached		01-06 to 01-07-97	01-06 to 01-07-97		
Date Analyzed (Method 7470)		01-08-97	01-08-97		
Date Analyzed (Method 6010A)		01-07-97	01-07-97		
Date Analyzed (Method 7421)		01-10-97	01-10-97		
Date Analyzed (Method 7060)		01-08-97	01-08-97		
Date Analyzed (Method 7740)		01-07-97	01-07-97		
Dilution Multiplier (Method 6010A) ^b		1	1		
Analyte	Method ^c	Reporting Limit, mg/L	Concentration, mg/L		
Arsenic	EPA 7060	0.050	<0.050	<0.050	
Barium	EPA 6010A	2.0	<2.0	<2.0	
Cadmium	EPA 6010A	0.005	<0.0050	<0.0050	
Chromium	EPA 6010A	0.10	<0.10	<0.10	
Lead	EPA 7421	0.0075 ^d	<0.0075	<0.0075	
Mercury	EPA 7470	0.002	<0.002	<0.002	
Selenium	EPA 7740	0.050	<0.050	<0.050	
Silver	EPA 6010A	0.050	<0.050	<0.050	

- a TCLP performed as per 40 CFR, Part 261, Appendix II - Method 1311. These data are presented in accordance with the Federal Register, 57, p.55114, November 24, 1992.
- b The dilution multiplier indicates the adjustments made for dilutions.
- c Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA, November 1986; Digestion by Method 3010 for Method 6010 analytes, Method 7470 for mercury, and Method 3020 for 7000 Series Methods.
- d The recovery limits were exceeded in the laboratory control sample and matrix spike sample due to matrix interferences during digestion.

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01
Login Number: W6120352
Project ID (number): 1315-296-4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 1311/8240
Matrix: Solids

NEI/GTEL Sample Number	W6120352-06	W6120352-07	--	--
Client ID	IDW1-2 SOIL	IDW3-4 SOIL	--	--
Date Sampled	12/19/96	12/19/96	--	--
Date Prepared	01/02/97	01/02/97	--	--
Date Analyzed	01/10/97	01/10/97	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units				
Benzene	0.05	mg/L	< 0.05	< 0.05	--	--
Carbon tetrachloride	0.05	mg/L	< 0.05	< 0.05	--	--
Chlorobenzene	0.05	mg/L	< 0.05	< 0.05	--	--
Chloroform	0.05	mg/L	< 0.05	< 0.05	--	--
1,4-Dichlorobenzene	0.05	mg/L	< 0.05	< 0.05	--	--
1,2-Dichloroethane	0.05	mg/L	< 0.05	< 0.05	--	--
1,1-Dichloroethene	0.05	mg/L	< 0.05	< 0.05	--	--
2-Butanone	0.2	mg/L	< 0.2	< 0.2	--	--
Tetrachloroethene	0.05	mg/L	< 0.05	< 0.05	--	--
Trichloroethene	0.05	mg/L	< 0.05	< 0.05	--	--
Vinyl chloride	0.1	mg/L	< 0.1	< 0.1	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 1311/8240:

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846, Third Edition including Update 2. TCLP is performed as per 40 CFR, Part 261, Appendix II - EPA Method 1311.

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01
Login Number: W6120352
Project ID (number): 1315-296-4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 524.2
Matrix: Aqueous

NEI/GTEL Sample Number	W6120352-09	--	--	--
Client ID	MW104 GW04	--	--	--
Date Sampled	12/19/96	--	--	--
Date Analyzed	01/08/97	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting		Concentration:		
	Limit	Units			
Ethylbenzene	0.5	ug/L	< 0.5	--	--
m+p-Xylene	0.5	ug/L	< 0.5	--	--
o-Xylene	0.5	ug/L	< 0.5	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 524.2:

Methods for the Determination of Organic Compounds in Drinking Water, Rev. 2.0, USEPA 1989

W6120352-09:

Sample run outside holding time to conform the GC run.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120352
Project ID (number): 1315-296-4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
Matrix: Aqueous

GTEL Sample Number	W6120352-01	W6120352-02	W6120352-03	W6120352-04
Client ID	2-RB02 RINSATE BLANK	MW102 GW04	MW103 GW04	MW104 GW04
Date Sampled	12/19/96	12/19/96	12/19/96	12/19/96
Date Analyzed	12/22/96	12/22/96	12/22/96	12/22/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:			
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	1.0	ug/L	1.1	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	3.1
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	< 1.0	1.4
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:
NEI/GTEL Wichita, KS
W6120352

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01

Login Number: W6120352

Project ID (number): 1315-296-4A

Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020

Matrix: Aqueous

GTEL Sample Number	W6120352-01	W6120352-02	W6120352-03	W6120352-04
Client ID	2-RB02 RINSATE BLANK	MW102 GW04	MW103 GW04	MW104 GW04
Date Sampled	12/19/96	12/19/96	12/19/96	12/19/96
Date Analyzed	12/22/96	12/22/96	12/22/96	12/22/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:
	Limit	Units	

Notes: (continued)

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120352
Project ID (number): 1315-296-4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
Matrix: Aqueous

GTEL Sample Number	W6120352-05	W6120352-08	--	--
Client ID	MW101 GW04	TB-08	--	--
Date Sampled	12/19/96		--	--
Date Analyzed	12/22/96	12/22/96	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:			
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	--	--
Chloromethane	2.0	ug/L	< 2.0	< 2.0	--	--
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	--	--
Bromomethane	2.0	ug/L	< 2.0	< 2.0	--	--
Chloroethane	1.0	ug/L	< 1.0	< 1.0	--	--
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	--	--
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	--	--
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	--	--
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	--	--
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	--	--
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	--	--
Chloroform	1.0	ug/L	< 1.0	< 1.0	--	--
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	--	--
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	--	--
Benzene	0.5	ug/L	< 0.5	< 0.5	--	--
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	--	--
Trichloroethene	1.0	ug/L	< 1.0	< 1.0	--	--
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	--	--
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	--	--
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	--	--
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	--	--
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	--	--
Toluene	1.0	ug/L	< 1.0	< 1.0	--	--
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	--	--
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	--	--
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	--	--
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	--	--
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	--	--
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	--	--
Bromoform	2.0	ug/L	< 2.0	< 2.0	--	--
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	--	--
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	--	--
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	--	--
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:
NEI/GTEL Wichita, KS
W6120352

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120352
Project ID (number): 1315-296-4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
Matrix: Aqueous

GTEL Sample Number	W6120352-05	W6120352-08	..	..
Client ID	MW101 GW04	TB-08	..	..
Date Sampled	12/19/96		..	..
Date Analyzed	12/22/96	12/22/96	..	..
Dilution Factor	1.00	1.00	..	..

Analyte	Reporting	Limit	Units	Concentration:
Notes: (continued)				

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: NYT01NYT01
Login Number: W6120352
Project ID (number): 1315-296-4A
Project ID (name): CAPITOL AIRPORT/IL

Method: See Below
Matrix: Aqueous

	GTEL Sample Number	W6120352-01	W6120352-02	W6120352-03	W6120352-04
	Client ID	2-RB02 RINSATE BLANK	MW102 GW04	MW103 GW04	MW104 GW04
	Date Sampled	12/19/96	12/19/96	12/19/96	12/19/96
EPA 6010A	Date Prepared	12/27/96	12/27/96	12/27/96	12/27/96
EPA 6010A	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 6010A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7041	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7041	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7041	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7060A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7060A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7060A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7421	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7421	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7421	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7470A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7470A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7470A	Dilution Factor	2.00	2.00	2.00	2.00
EPA 7740	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7740	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7740	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7841	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7841	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7841	Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
Inorganics (MT, WC)			
Antimony	EPA 7041	10. ug/L	< 10. < 10. < 10. < 10.
Arsenic	EPA 7060A	10. ug/L	< 10. < 10. < 10. 72.
Beryllium	EPA 6010A	5.0 ug/L	< 5.0 < 5.0 < 5.0 < 5.0
Cadmium	EPA 6010A	20. ug/L	< 20. < 20. < 20. < 20.
Chromium	EPA 6010A	30. ug/L	< 30. < 30. < 30. < 30.
Copper	EPA 6010A	25. ug/L	< 25. < 25. < 25. < 25.
Lead	EPA 7421	4.0 ug/L	< 4.0 < 4.0 16. 10.
Mercury	EPA 7470A	0.50 ug/L	< 1.0 < 1.0 < 1.0 < 1.0
Nickel	EPA 6010A	40. ug/L	< 40. < 40. < 40. < 40.
Selenium	EPA 7740	10. ug/L	< 10. < 10. < 10. < 10.
Silver	EPA 6010A	20. ug/L	< 20. < 20. < 20. < 20.
Thallium	EPA 7841	10. ug/L	< 10. < 10. < 10. < 10.
Zinc	EPA 6010A	20. ug/L	< 20. 35. 61. 23.

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W6120352

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: NYT01NYT01
Login Number: W6120352
Project ID (number): 1315-296-4A
Project ID (name): CAPITOL AIRPORT/IL

Method: See Below
Matrix: Aqueous

GTEL Sample Number		W6120352-01	W6120352-02	W6120352-03	W6120352-04
Client ID 2-RB02 RINSATE BLANK			MW102 GW04	MW103 GW04	MW104
Date Sampled		12/19/96	12/19/96	12/19/96	12/19/96
EPA 6010A	Date Prepared	12/27/96	12/27/96	12/27/96	12/27/96
EPA 6010A	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 6010A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7041	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7041	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7041	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7060A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7060A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7060A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7421	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7421	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7421	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7470A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7470A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7470A	Dilution Factor	2.00	2.00	2.00	2.00
EPA 7740	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7740	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7740	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7841	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7841	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7841	Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:
	Limit	Units	

EPA 7421, EPA 7841:

Digestion for Total Metals by EPA Method 3020A.

Digestion for Total Metals by EPA Method 3020A.

EPA 7060A, EPA 7740:

Digestion by EPA Method 7060.

EPA 7470A:

Digestion is method specific.

EPA 6010A, EPA 7041, EPA 7060A, EPA 7421, EPA 7470A, EPA 7740, EPA 7841:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update.2.

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: NYT01NYT01
Login Number: W6120352
Project ID (number): 1315-296-4A
Project ID (name): CAPITOL AIRPORT/IL

Method: See Below
Matrix: Aqueous

	GTEL Sample Number	W6120352-05	--	--	--
	Client ID	MW101 GW04	--	--	--
	Date Sampled	12/19/96	--	--	--
EPA 6010A	Date Prepared	12/27/96	--	--	--
EPA 6010A	Date Analyzed	12/27/96	--	--	--
EPA 6010A	Dilution Factor	1.00	--	--	--
EPA 7041	Date Prepared	12/23/96	--	--	--
EPA 7041	Date Analyzed	12/27/96	--	--	--
EPA 7041	Dilution Factor	1.00	--	--	--
EPA 7060A	Date Prepared	12/24/96	--	--	--
EPA 7060A	Date Analyzed	12/26/96	--	--	--
EPA 7060A	Dilution Factor	1.00	--	--	--
EPA 7421	Date Prepared	12/23/96	--	--	--
EPA 7421	Date Analyzed	12/26/96	--	--	--
EPA 7421	Dilution Factor	1.00	--	--	--
EPA 7470A	Date Prepared	12/24/96	--	--	--
EPA 7470A	Date Analyzed	12/26/96	--	--	--
EPA 7470A	Dilution Factor	2.00	--	--	--
EPA 7740	Date Prepared	12/24/96	--	--	--
EPA 7740	Date Analyzed	12/26/96	--	--	--
EPA 7740	Dilution Factor	1.00	--	--	--
EPA 7841	Date Prepared	12/23/96	--	--	--
EPA 7841	Date Analyzed	12/27/96	--	--	--
EPA 7841	Dilution Factor	1.00	--	--	--

		Reporting				
Analyte		Limit	Units	Concentration:		
Antimony	EPA 7041	10.	ug/L	< 10.	--	--
Arsenic	EPA 7060A	10.	ug/L	27.	--	--
Beryllium	EPA 6010A	5.0	ug/L	< 5.0	--	--
Cadmium	EPA 6010A	20.	ug/L	< 20.	--	--
Chromium	EPA 6010A	30.	ug/L	< 30.	--	--
Copper	EPA 6010A	25.	ug/L	32.	--	--
Lead	EPA 7421	4.0	ug/L	19.	--	--
Mercury	EPA 7470A	0.50	ug/L	< 1.0	--	--
Nickel	EPA 6010A	40.	ug/L	< 40.	--	--
Selenium	EPA 7740	10.	ug/L	< 10.	--	--
Silver	EPA 6010A	20.	ug/L	< 20.	--	--
Thallium	EPA 7841	10.	ug/L	< 10.	--	--
Zinc	EPA 6010A	20.	ug/L	49.	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS
W6120352

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: NYT01NYT01
Login Number: W6120352
Project ID (number): 1315-296-4A
Project ID (name): CAPITOL AIRPORT/IL

Method: See Below
Matrix: Aqueous

	GTEL Sample Number	W6120352-05	--	--	--
	Client ID	MW101 GW04	--	--	--
	Date Sampled	12/19/96	--	--	--
EPA 6010A	Date Prepared	12/27/96	--	--	--
EPA 6010A	Date Analyzed	12/27/96	--	--	--
EPA 6010A	Dilution Factor	1.00	--	--	--
EPA 7041	Date Prepared	12/23/96	--	--	--
EPA 7041	Date Analyzed	12/27/96	--	--	--
EPA 7041	Dilution Factor	1.00	--	--	--
EPA 7060A	Date Prepared	12/24/96	--	--	--
EPA 7060A	Date Analyzed	12/26/96	--	--	--
EPA 7060A	Dilution Factor	1.00	--	--	--
EPA 7421	Date Prepared	12/23/96	--	--	--
EPA 7421	Date Analyzed	12/26/96	--	--	--
EPA 7421	Dilution Factor	1.00	--	--	--
EPA 7470A	Date Prepared	12/24/96	--	--	--
EPA 7470A	Date Analyzed	12/26/96	--	--	--
EPA 7470A	Dilution Factor	2.00	--	--	--
EPA 7740	Date Prepared	12/24/96	--	--	--
EPA 7740	Date Analyzed	12/26/96	--	--	--
EPA 7740	Dilution Factor	1.00	--	--	--
EPA 7841	Date Prepared	12/23/96	--	--	--
EPA 7841	Date Analyzed	12/27/96	--	--	--
EPA 7841	Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

EPA 7421, EPA 7841:

Digestion for Total Metals by EPA Method 3020A.

Digestion for Total Metals by EPA Method 3020A.

EPA 7060A, EPA 7740:

Digestion by EPA Method 7060.

EPA 7470A:

Digestion is method specific.

EPA 6010A, EPA 7041, EPA 7060A, EPA 7421, EPA 7470A, EPA 7740, EPA 7841:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 2.



Chain of Custody Record

page #: _____ of _____

Login #: _____
 Ship to: _____
 Nytest Environmental Inc.
 60 Seaview Blvd
 Port Washington N.Y. 11050
 Attn.: Sample Control
 Date Shipped: _____
 Carrier: _____
 Air Bill #: _____
 Cooler #: _____
 C of C #: _____
 SDG #: _____

No. of Containers	Analysis Requested
(8010/8020) VOCs	
RECEIVED W/HCL	
(6010/7000) ppm	
RECEIVED W/HNO ₃	
(8240)(TCLP) VOC	
ppm (TCLP)(7000)/	(6010)

Client Name	OPTech
Address	4100 N.W. Loop 410, Ste. 230 San Antonio, Tx. 78229
Project Manager	KATHYRN PRITCHETT
Phone	(210) 731-0000 FAX (210) 731-0008
Project Name	CAPITOL AIRPORT - ILLINOIS ANG
Project Number	1315-296/4A
P.O. #	
Analytical Protocol	Deliverables
	Buy Agreement & TOE BYRD

NEI QT #:	Comments
	WATER
	"
	"
	"
	"
	Hold For Analysis
	" "
	" "

[illegible]

Sampled By	Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Description
	02	M W 1 0 2	12/19/96	0855	GW04
	03	M W 1 0 3	12/19/96	0930	GW04
	04	M W 1 0 4	12/19/96	1025	GW04
	05	M W 1 0 1	12/19/96	1055	GW04
	06	I D W 1 - 2	12/19/96	0905	SOIL
	07	I D W 3 - 4	12/19/96	0915	SOIL
	08	T B - 0 8	12/19/96	-	TRIP BLANK

Use Only		Broken	Absent
Condition?:	(Y)	N	
<u>76</u>	Degrees Celsius		

[illegible]

Relinquished by: <u>Rudy Arredondo</u>	Date / Time <u>12/19/12</u>	Received by:
Print Name: <u>RUDY ARREDONDO</u>		Print Name:
Relinquished by:	Date / Time	Received by:
Print Name:		Print Name:
Relinquished by:	Date / Time	Received by Laboratory: <u>5</u>
Print Name:		Print Name: <u>ZEBBA</u>

Special Instructions: 2nd Confirmation on VOCs

FILE # 77-100113-1



Midwest Region

4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

December 31, 1996

Kathryn Pritchett
Operational Technologies Corp.
4100 N.W. Loop 410
Suite 230
San Antonio, TX 78229

RE: GTEL Client ID:	OTC010TC01
Login Number:	W6120253
Project ID (number):	1315-269/4A
Project ID (name):	CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Dear Kathryn Pritchett:

This report, previously dated 12/30/96, is a reissue.

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 12/14/96.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the State of Kansas under Certification Numbers E-103, E-1113.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Justin Ward, Project Coordinator for
Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
Matrix: Aqueous

GTEL Sample Number	W6120253-03	W6120253-04	W6120253-05	--
Client ID	2-RB01	2-FB01	2-TB01	--
Date Sampled	12/13/96	12/13/96		--
Date Analyzed	12/17/96	12/17/96	12/17/96	--
Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting Limit	Units	Concentration:			
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	--
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	--
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	--
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	1.9	--
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Chloroform	1.0	ug/L	3.6	42.	< 1.0	--
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Benzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Trichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Bromodichloromethane	1.0	ug/L	< 1.0	13.	< 1.0	--
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Dibromochloromethane	1.0	ug/L	< 1.0	3.1	< 1.0	--
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	--
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:
NEI/GTEL Wichita, KS
W6120253

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
Matrix: Aqueous

GTEL Sample Number	W6120253-03	W6120253-04	W6120253-05	--
Client ID	2-RB01	2-FB01	2-TB01	--
Date Sampled	12/13/96	12/13/96		--
Date Analyzed	12/17/96	12/17/96	12/17/96	--
Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting Limit	Units	Concentration:
Notes: (continued)			

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.
W6120253-05:
Methylene chloride is a common laboratory contaminant.

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8010/8
Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	X	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	*	--	--
Method Precision	X	--	--
Blank Contamination	X	--	--

Comments:

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8010/8
Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	BFB ELCD	BFB PID
Method: EPA 8010/8020 Acceptability Limits:			52.8-144%	77.3-129%
121796GC11-1	CV1217962011	Calibration Verifi	93.3	94.9
121796GC11-2	BW12179611	Method Blank Water	110.	94.7
121796GC11-3	DP12024405	Duplicate	109.	94.4
121796GC11-4	MS12024501	Matrix Spike	101.	96.5
121796GC11-5	LW1217962011	Laboratory Control	99.3	95.1
121796GC11-6	CM1217962011	Calibration Verifi	101.	113.
--	12025303	2-RB01	102.	92.7
--	12025304	2-FB01	105.	92.6
--	12025305	2-TB01	105.	93.0

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8010/8
Matrix: Aqueous

Method Blank Results

QC Batch No: 121796GC11-2
Date Analyzed: 17-DEC-96

Analyte Method: EPA 8010/8020 Concentration: ug/L

Dichlorodifluoromethane	< 5.00
Chloromethane	< 2.00
Vinyl chloride	< 1.00
Bromomethane	< 2.00
Chloroethane	< 1.00
Trichlorofluoromethane	< 1.00
1,1-Dichloroethene	< 1.00
Methylene chloride	< 1.00
trans-1,2-Dichloroethene	< 1.00
1,1-Dichloroethane	< 1.00
cis-1,2-Dichloroethene	< 1.00
Chloroform	< 1.00
1,1,1-Trichloroethane	< 1.00
Carbon tetrachloride	< 1.00
Benzene	< 0.500
1,2-Dichloroethane	< 1.00
Trichloroethene	< 1.00
1,2-Dichloropropane	< 1.00
Bromodichloromethane	< 1.00
2-Chloroethyl vinyl ether	< 1.00
cis-1,3-Dichloropropene	< 1.00
trans-1,3-Dichloropropene	< 1.00
Toluene	< 1.00
1,1,2-Trichloroethane	< 1.00
Tetrachloroethene	< 1.00
Dibromochloromethane	< 1.00
Chlorobenzene	< 1.00
Ethylbenzene	< 1.00
Xylenes (Total)	< 1.00
Bromoform	< 2.00
1,1,2,2-Tetrachloroethane	< 1.00
1,3-Dichlorobenzene	< 1.00
1,4-Dichlorobenzene	< 1.00
1,2-Dichlorobenzene	< 1.00

Notes:

GTCL Client ID: OTC010TC01
 Login Number: W6120253
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organic
 Method: EPA 8010/6
 Matrix: Aqueous

Calibration Verification Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8010/8020 Units:ug/L	QC Batch:121796GC11-1			
Dichlorodifluoromethane	20.0	15.2	76.0	40-160%
Chloromethane	20.0	12.8	64.0	59.5-140.5%
Vinyl chloride	20.0	21.8	109.	68.5-131.5%
Bromomethane	20.0	26.7	134.	58.5-141.5%
Chloroethane	20.0	21.6	108.	77-123%
Trichlorofluoromethane	20.0	18.9	94.5	66.5-133.5%
1,1-Dichloroethene	20.0	20.3	102.	63-137%
Methylene chloride	20.0	19.6	98.0	77.5-122.5%
trans-1,2-Dichloroethene	20.0	21.3	107.	64-136%
1,1-Dichloroethane	20.0	21.2	106.	71.5-116%
cis-1,2-Dichloroethene	20.0	22.0	110.	64-116%
Chloroform	20.0	20.7	104.	75-125%
1,1,1-Trichloroethane	20.0	22.2	111.	71-129%
Carbon tetrachloride	20.0	26.1	131.	68.5-131.5%
Benzene	20.0	18.2	91.0	77-123%
1,2-Dichloroethane	20.0	20.4	102.	71.5-128.5%
Trichloroethene	20.0	21.2	106.	77-123%
1,2-Dichloropropane	20.0	21.8	109.	74-126%
Bromodichloromethane	20.0	21.8	109.	76-124%
2-Chloroethyl vinyl ether	20.0	21.3	107.	60-140%
cis-1,3-Dichloropropene	20.0	22.4	112.	64-136%
trans-1,3-Dichloropropene	20.0	23.1	116.	64-136%
Toluene	20.0	19.1	95.5	77.5-122.5%
1,1,2-Trichloroethane	20.0	22.1	111.	78.5-121.5%
Tetrachloroethene	20.0	21.9	110.	70-130%
Dibromochloromethane	20.0	22.5	113.	65.5-134.5%
Chlorobenzene	20.0	22.4	112.	72-128%
Ethylbenzene	20.0	19.6	98.0	63-137%
Xylenes (Total)	60.0	57.8	96.3	36-136%
Bromoform	20.0	23.7	119.	73.5-126.5%
1,1,2,2-Tetrachloroethane	20.0	21.4	107.	49-151%
1,3-Dichlorobenzene	20.0	22.6	113.	49.5-150.5%
1,4-Dichlorobenzene	20.0	22.5	113.	69.5-130.5%
1,2-Dichlorobenzene	20.0	22.4	112.	70-130%

Notes:

GTEL Client ID: OTC010TC01
 Login Number: W6120253
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organics
 Method: EPA 8010/8
 Matrix: Aqueous

Continuing Calibration Verification Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8010/8020 Units:ug/L	QC Batch:121796GC11-6			
Dichlorodifluoromethane	20.0	19.0	95.0	40-160%
Chloromethane	20.0	13.9	69.5	59.5-140.5%
Vinyl chloride	20.0	23.0	115.	68.5-131.5%
Bromomethane	20.0	27.1	136.	58.5-141.5%
Chloroethane	20.0	20.3	102.	77-123%
Trichlorofluoromethane	20.0	19.1	95.5	66.5-133.5%
1,1-Dichloroethene	20.0	20.7	104.	63-137%
Methylene chloride	20.0	20.0	100.	77.5-122.5%
trans-1,2-Dichloroethene	20.0	21.4	107.	64-136%
1,1-Dichloroethane	20.0	21.3	107.	71.5-116%
cis-1,2-Dichloroethene	20.0	21.9	110.	64-116%
Chloroform	20.0	20.7	104.	75-125%
1,1,1-Trichloroethane	20.0	22.3	112.	71-129%
Carbon tetrachloride	20.0	25.9	130.	68.5-131.5%
Benzene	20.0	21.7	109.	77-123%
1,2-Dichloroethane	20.0	20.3	102.	71.5-128.5%
Trichloroethene	20.0	21.8	109.	77-123%
1,2-Dichloropropane	20.0	22.2	111.	74-126%
Bromodichloromethane	20.0	22.6	113.	76-124%
2-Chloroethyl vinyl ether	20.0	19.1	95.5	60-140%
cis-1,3-Dichloropropene	20.0	22.2	111.	64-136%
trans-1,3-Dichloropropene	20.0	22.9	115.	64-136%
Toluene	20.0	22.5	113.	77.5-122.5%
1,1,2-Trichloroethane	20.0	22.1	111.	78.5-121.5%
Tetrachloroethene	20.0	22.0	110.	70-130%
Dibromochloromethane	20.0	23.2	116.	65.5-134.5%
Chlorobenzene	20.0	22.7	114.	72-128%
Ethylbenzene	20.0	23.1	116.	63-137%
Xylenes (Total)	60.0	68.1	114.	36-136%
Bromoform	20.0	24.8	124.	73.5-126.5%
1,1,2,2-Tetrachloroethane	20.0	20.5	103.	49-151%
1,3-Dichlorobenzene	20.0	21.9	110.	49.5-150.5%
1,4-Dichlorobenzene	20.0	22.4	112.	69.5-130.5%
1,2-Dichlorobenzene	20.0	22.2	111.	70-130%

Notes:

GTEL Client ID: OTC010TC01
 Login Number: W6120253
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organic
 Method: EPA 8010/8
 Matrix: Aqueous

Laboratory Control Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8010/8020 Units:ug/L	QC Batch:121796GC11-5			
Dichlorodifluoromethane	20.0	22.6	113	40-160%
Chloromethane	20.0	15.0	75.0	10-193%
Vinyl chloride	20.0	24.4	122	28-163%
Bromomethane	20.0	28.3	142	10-144%
Chloroethane	20.0	20.4	102	46-137%
Trichlorofluoromethane	20.0	20.3	102	21-156%
1,1-Dichloroethene	20.0	18.8	94.0	28-167%
Methylene chloride	20.0	18.1	90.5	25-162%
trans-1,2-Dichloroethene	20.0	20.5	103	38-155%
1,1-Dichloroethane	20.0	20.0	100	47-132%
cis-1,2-Dichloroethene	20.0	20.7	104	38-155%
Chloroform	20.0	19.5	97.5	49-133%
1,1,1-Trichloroethane	20.0	21.5	108	41-138%
Carbon tetrachloride	20.0	26.2	131	43-143%
Benzene	20.0	18.3	91.5	39-150%
1,2-Dichloroethane	20.0	20.3	102	51-147%
Trichloroethene	20.0	24.3	122	35-146%
1,2-Dichloropropane	20.0	21.0	105	44-156%
Bromodichloromethane	20.0	22.1	111	42-172%
2-Chloroethyl vinyl ether	20.0	18.5	92.5	14-186%
cis-1,3-Dichloropropene	20.0	20.3	102	22-178%
trans-1,3-Dichloropropene	20.0	20.8	104	22-178%
Toluene	20.0	18.9	94.5	46-148%
1,1,2-Trichloroethane	20.0	20.9	105	39-136%
Tetrachloroethene	20.0	22.1	111	26-162%
Dibromochloromethane	20.0	22.2	111	24-191%
Chlorobenzene	20.0	22.0	110	38-150%
Ethylbenzene	20.0	19.7	98.5	32-160%
Xylenes (Total)	60.0	57.7	96.2	36-136%
Bromoform	20.0	23.0	115	13-159%
1,1,2,2-Tetrachloroethane	20.0	15.8	79.0	10-184%
1,3-Dichlorobenzene	20.0	21.5	108	10-187%
1,4-Dichlorobenzene	20.0	21.9	110	42-143%
1,2-Dichlorobenzene	20.0	21.6	108	10-208%

Notes:

GTEL Client ID: OTC010TC01
 Login Number: W6120253
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organics
 Method: EPA 8010/8
 Matrix: Aqueous

Duplicate Sample Results

Analyte	Original Concentration	Duplicate Concentration	RPD, %	Acceptability Limits, %
EPA 8010/8020 Units: ug/L	QC Batch: 121796GC11-3	GTEL Sample ID: W6120244-05		Client ID: Batch QC
Dichlorodifluoromethane	< 100	< 100	NA	35.4
Chloromethane	< 40.0	< 40.0	NA	24.2
Vinyl chloride	< 20.0	< 20.0	NA	18.6
Bromomethane	< 40.0	< 40.0	NA	24.8
Chloroethane	< 20.0	< 20.0	NA	14.4
Trichlorofluoromethane	< 20.0	< 20.0	NA	19.6
1,1-Dichloroethene	< 20.0	< 20.0	NA	21.6
Methylene chloride	27.7	31.4	12.5	13.1
trans-1,2-Dichloroethene	< 20.0	< 20.0	NA	20.9
1,1-Dichloroethane	< 20.0	< 20.0	NA	10.5
cis-1,2-Dichloroethene	314	303	3.57	20.9
Chloroform	< 20.0	< 20.0	NA	14.7
1,1,1-Trichloroethane	< 20.0	< 20.0	NA	16
Carbon tetrachloride	< 20.0	< 20.0	NA	18.3
1,2-Dichloroethane	< 20.0	< 20.0	NA	17
Trichloroethene	1210	1150	5.08	13.7
1,2-Dichloropropane	< 20.0	< 20.0	NA	17
Bromodichloromethane	< 20.0	< 20.0	NA	13.1
2-Chloroethyl vinyl ether	< 20.0	< 20.0	NA	27.1
cis-1,3-Dichloropropene	< 20.0	< 20.0	NA	23.8
trans-1,3-Dichloropropene	< 20.0	< 20.0	NA	23.8
1,1,2-Trichloroethane	< 20.0	< 20.0	NA	12.8
Tetrachloroethene	22.7	21.8	4.04	17.7
Dibromochloromethane	< 20.0	< 20.0	NA	20.6
Chlorobenzene	< 20.0	< 20.0	NA	16.4
Bromoform	< 40.0	< 40.0	NA	15.4
1,1,2,2-Tetrachloroethane	< 20.0	< 20.0	NA	30
1,3-Dichlorobenzene	< 20.0	< 20.0	NA	29.7
1,4-Dichlorobenzene	< 20.0	< 20.0	NA	18
1,2-Dichlorobenzene	< 20.0	< 20.0	NA	18

Notes:

NA - The concentration of the analyte is less than the reporting limit.

121796GC11-3: Methylene chloride is a common laboratory contaminant. Reported concentration is elevated due to the dilution multiplier.

GTEL Client ID: OTC010TC01
 Login Number: W6120253
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organic
 Method: EPA 8010/8
 Matrix: Aqueous

Matrix Spike(MS) Results

GTEL Sample ID:W6120245-01 Analysis Date: 17-DEC-96			MS ID:MS12024501 18-DEC-96		
Units: ug/L	Sample	Spike	MS	MS	Acceptability Limits
Analyte	Conc.	Added	Conc.	% Rec.	%Rec.
Dichlorodifluoromethane	< 5.0 (0.000)	20.0	19.9	99.5	40-160
Chloromethane	< 2.0 (0.000)	20.0	15.0	75.0	10-193
Vinyl chloride	< 1.0 (0.000)	20.0	24.3	122.	28-163
Bromomethane	< 2.0 (0.000)	20.0	28.4	142.	10-144
Chloroethane	< 1.0 (0.000)	20.0	21.9	110.	46-137
Trichlorofluoromethane	< 1.0 (0.000)	20.0	20.2	101.	21-156
1,1-Dichloroethene	< 1.0 (0.000)	20.0	19.9	99.5	28-167
Methylene chloride	< 1.0 (0.0200)	20.0	18.4	91.9	25-162
trans-1,2-Dichloroethene	< 1.0 (0.000)	20.0	20.7	104.	38-155
1,1-Dichloroethane	< 1.0 (0.000)	20.0	20.8	104.	47-132
cis-1,2-Dichloroethene	< 1.0 (0.000)	20.0	21.5	108.	38-155
Chloroform	< 1.0 (0.000)	20.0	20.1	101.	49-133
1,1,1-Trichloroethane	< 1.0 (0.000)	20.0	22.2	111.	41-138
Carbon tetrachloride	< 1.0 (0.000)	20.0	27.0	135.	43-143
1,2-Dichloroethane	< 1.0 (0.000)	20.0	20.9	105.	51-147
Trichloroethene	< 1.0 (0.000)	20.0	20.8	104.	35-146
1,2-Dichloropropane	< 1.0 (0.000)	20.0	21.3	107.	44-156
Bromodichloromethane	< 1.0 (0.000)	20.0	22.7	114.	42-172
2-Chloroethyl vinyl ether	< 1.0 (0.000)	20.0	0.00	0.00*	14-186
cis-1,3-Dichloropropene	< 1.0 (0.000)	20.0	20.7	104.	22-178
trans-1,3-Dichloropropene	< 1.0 (0.000)	20.0	21.4	107.	22-178
1,1,2-Trichloroethane	< 1.0 (0.000)	20.0	21.4	107.	39-136
Tetrachloroethene	< 1.0 (0.000)	20.0	22.1	111.	26-162
Dibromochloromethane	< 1.0 (0.000)	20.0	22.3	112.	24-191
Chlorobenzene	< 1.0 (0.000)	20.0	21.9	110.	38-150
Bromoform	< 2.0 (0.000)	20.0	23.5	118.	13-159
1,1,2,2-Tetrachloroethane	< 1.0 (0.000)	20.0	21.0	105.	10-184
1,3-Dichlorobenzene	< 1.0 (0.000)	20.0	22.0	110.	10-187
1,4-Dichlorobenzene	< 1.0 (0.000)	20.0	22.4	112.	42-143
1,2-Dichlorobenzene	< 1.0 (0.000)	20.0	22.1	111.	10-208

Notes:

Values in parentheses in the sample concentration column are used for % recovery calculations.

121796GC11-4: 2-Chloroethylvinyl ether decomposes in the presence of Hydrochloric Acid (used as a preservative).

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 524.2
Matrix: Aqueous

GTEL Sample Number	W6120253-03	W6120253-04	W6120253-05	--
Client ID	2-RB01	2-FB01	2-TB01	--
Date Sampled	12/13/96	12/13/96		--
Date Analyzed	12/26/96	12/26/96	12/26/96	--
Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting Limit	Units	Concentration:			
Dichlorodifluoromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Chloromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Bromomethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Vinyl chloride	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Chloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Trichlorofluoromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,1-Dichloroethene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
MTBE	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
trans-1,2-Dichloroethene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,1-Dichloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
2,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
cis-1,2-Dichloroethene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Chloroform	0.5	ug/L	3.2	32.	< 0.5	--
Bromochloromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,1,1-Trichloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,1-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Carbon tetrachloride	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Benzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2-Dichloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Trichloroethene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2-Dichloropropane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Bromodichloromethane	0.5	ug/L	< 0.5	9.2	< 0.5	--
Dibromomethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
2-Chloroethylvinyl ether	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
cis-1,3-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Toluene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
trans-1,3-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,1,2-Trichloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2-Dibromoethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Tetrachloroethene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,3-Dichloropropane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Dibromochloromethane	0.5	ug/L	< 0.5	2.9	< 0.5	--
Chlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Ethylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,1,1,2-Tetrachloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
m+p-Xylene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
o-Xylene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Styrene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--

NEI/GTEL Wichita, KS
W6120253

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 524.2
Matrix: Aqueous

GTEL Sample Number	W6120253-03	W6120253-04	W6120253-05	--
Client ID	2-RB01	2-FB01	2-TB01	--
Date Sampled	12/13/96	12/13/96		--
Date Analyzed	12/26/96	12/26/96	12/26/96	--
Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting		Concentration:			
	Limit	Units				
Bromoform	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Isopropylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,1,2,2-Tetrachloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2,3-Trichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
n-Propylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Bromobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,3,5-Trimethylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
2-Chlorotoluene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
4-Chlorotoluene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
tert-Butylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2,4-Trimethylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
sec-Butylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
p-Isopropyltoluene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,3-Dichlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,4-Dichlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
n-Butylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2-Dichlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2-Dibromo-3-chloropropane	2.0	ug/L	< 2.0	< 2.0	< 2.0	--
1,2,4-Trichlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Hexachlorobutadiene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Naphthalene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2,3-Trichlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 524.2:

Methods for the Determination of Organic Compounds in Drinking Water, Rev. 2.0, USEPA 1989

GTEL Client ID: OTC010TC01

Login Number: W6120253

Project ID (number): 1315-269/4A

Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organics

Method: EPA 524.2

Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met

* = See Comments

-- = Not Required

NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	--	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	*	--	--
Method Precision	--	--	--
Blank Contamination	X	--	--

Comments:

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organic
Method: EPA 524.2
Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	DBFM	TOL-d8	4-BFB
Method: EPA 524.2	Acceptability Limits:		70-130%	70-130%	70-130%
122696HP2-1	BW122696HP2	Method Blank Water	93.6	103	110
122696HP2-2	LW122696HP2	Laboratory Control	97.8	105	106
122696HP2-3	LWD122696HP2	LCS Water Duplicat	101	103	103
--	12025303	2-RB01	102	102	105
--	12025304	2-FB01	97.9	100	104
--	12025305	2-TB01	107	104	106

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 524.2
Matrix: Aqueous

Method Blank Results

QC Batch No: 122696HP2-1
Date Analyzed: 26-DEC-96

Analyte Method: EPA 524.2 Concentration: ug/L

Dichlorodifluoromethane	< 0.500
Chloromethane	< 0.500
Bromomethane	< 1.00
Vinyl chloride	< 0.500
Chloroethane	< 0.500
Trichlorofluoromethane	< 0.500
1,1-Dichloroethene	< 0.500
Methylene chloride	< 1.00
MTBE	< 0.500
trans-1,2-Dichloroethene	< 0.500
1,1-Dichloroethane	< 0.500
2,2-Dichloropropane	< 0.500
cis-1,2-Dichloroethene	< 0.500
Chloroform	< 0.500
Bromochloromethane	< 0.500
1,1,1-Trichloroethane	< 0.500
1,1-Dichloropropene	< 0.500
Carbon tetrachloride	< 0.500
Benzene	< 0.500
1,2-Dichloroethane	< 0.500
Trichloroethene	< 0.500
1,2-Dichloropropane	< 0.500
Bromodichloromethane	< 0.500
Dibromomethane	< 0.500
2-Chloroethyl vinyl ether	< 0.500
cis-1,3-Dichloropropene	< 0.500
Toluene	< 0.500
trans-1,3-Dichloropropene	< 0.500
1,1,2-Trichloroethane	< 0.500
1,2-Dibromoethane	< 0.500
Tetrachloroethene	< 0.500
1,3-Dichloropropane	< 0.500
Dibromochloromethane	< 0.500
Chlorobenzene	< 0.500
Ethylbenzene	< 0.500
1,1,1,2-Tetrachloroethane	< 0.500
m+p-Xylene	< 0.500
o-Xylene	< 0.500
Styrene	< 0.500
Bromoform	< 0.500
Isopropylbenzene	< 0.500
1,1,2,2-Tetrachloroethane	< 0.500
1,2,3-Trichloropropane	< 0.500
n-Propylbenzene	< 0.500

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 524
Matrix: Aqueous

Method Blank Results

Bromobenzene	< 0.500
1,3,5-Trimethylbenzene	< 0.500
2-Chlorotoluene	< 0.500
4-Chlorotoluene	< 0.500
tert-Butylbenzene	< 0.500
1,2,4-Trimethylbenzene	< 0.500
sec-Butylbenzene	< 0.500
p-Isopropyltoluene	< 0.500
1,3-Dichlorobenzene	< 0.500
1,4-Dichlorobenzene	< 0.500
n-Butylbenzene	< 0.500
1,2-Dichlorobenzene	< 0.500
1,2-Dibromo-3-chloropropane	< 0.500
1,2,4-Trichlorobenzene	< 0.500
Hexachlorobutadiene	< 0.500
Naphthalene	< 0.500
1,2,3-Trichlorobenzene	< 0.500

Notes:

Limits based on laboratory practice i.e. provisional limits.

GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W6120253

Volatile Organics

Project ID (number): 1315-269/4A

Method: EPA 524.2

Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Matrix: Aqueous

Laboratory Control Sample (LCS) and Laboratory Control Duplicate Results

Analyte	Spike Amount	LCS		LCS Duplicate		Acceptability Limits	
		Concentration	Recovery, %	Concentration	Recovery, %	RPD, %	Recovery, %
EPA 524.2	Units: ug/L	QC Batch:122696HP2-3					
Vinyl chloride	2.00	1.78	89.0	1.99	99.5	11.1	70-130%
Chloroethane	2.00	1.79	89.5	1.25	62.5*	35.5	70-130%
1,1-Dichloroethene	2.00	2.07	104.	2.24	112.	7.41	70-130%
trans-1,2-Dichloroethene	2.00	2.11	106.	2.13	107.	0.939	70-130%
cis-1,2-Dichloroethene	2.00	2.10	105.	2.24	112.	6.45	70-130%
Chloroform	2.00	1.96	98.0	2.00	100.	2.02	70-130%
1,1,1-Trichloroethane	2.00	1.88	94.0	2.00	100.	6.19	70-130%
Carbon tetrachloride	2.00	1.82	91.0	1.91	95.5	4.83	70-130%
Benzene	2.00	2.02	101.	2.08	104.	2.93	70-130%
1,2-Dichloroethane	2.00	1.84	92.0	1.86	93.0	1.08	70-130%
Trichloroethene	2.00	2.04	102.	2.10	105.	2.90	70-130%
Toluene	2.00	2.07	104.	2.19	110.	5.61	70-130%
1,1,2-Trichloroethane	2.00	2.20	110.	2.12	106.	3.70	70-130%
1,2-Dibromoethane	2.00	2.17	109.	2.06	103.	5.66	70-130%
Tetrachloroethene	2.00	2.06	103.	2.03	102.	0.976	70-130%
Chlorobenzene	2.00	2.20	110.	2.16	108.	1.83	70-130%
Ethylbenzene	2.00	2.20	110.	2.33	117.	6.17	70-130%
m+p-Xylene	4.00	4.11	103.	4.07	102.	0.976	70-130%
o-Xylene	2.00	2.27	114.	2.27	114.	0.00	70-130%
Styrene	2.00	2.15	108.	2.20	110.	1.83	70-130%
1,4-Dichlorobenzene	2.00	2.02	101.	2.09	105.	3.88	70-130%
1,2-Dichlorobenzene	2.00	2.24	112.	2.29	115.	2.64	70-130%
1,2-Dibromo-3-chloropropane	2.00	1.68	84.0	1.61	80.5	4.26	70-130%
1,2,4-Trichlorobenzene	2.00	2.22	111.	2.30	115.	3.54	70-130%

Notes:

Limits based on laboratory practice i.e. provisional limits.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8240B
Matrix: Low Soil

GTEL Sample Number	W6120253-01	W6120253-02	--	--
Client ID	201B01	202B01	--	--
Date Sampled	12/11/96	12/12/96	--	--
Date Analyzed	12/18/96	12/18/96	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting		Concentration:Wet Weight	
	Limit	Units		
Chloromethane	10.	ug/kg	< 10.	--
Bromomethane	10.	ug/kg	< 10.	--
Vinyl chloride	10.	ug/kg	< 10.	--
Chloroethane	10.	ug/kg	< 10.	--
Methylene chloride	10.	ug/kg	16.	--
Acetone	20.	ug/kg	< 20.	--
Carbon disulfide	5.0	ug/kg	< 5.0	--
1,1-Dichloroethene	5.0	ug/kg	< 5.0	--
1,1-Dichloroethane	5.0	ug/kg	< 5.0	--
cis-1,2-Dichloroethene	5.0	ug/kg	< 5.0	--
trans-1,2-Dichloroethene	5.0	ug/kg	< 5.0	--
Chloroform	5.0	ug/kg	< 5.0	--
1,2-Dichloroethane	5.0	ug/kg	< 5.0	--
2-Butanone	20.	ug/kg	< 20.	--
1,1,1-Trichloroethane	5.0	ug/kg	< 5.0	--
Carbon tetrachloride	5.0	ug/kg	< 5.0	--
Vinyl acetate	20.	ug/kg	< 20.	--
Bromodichloromethane	5.0	ug/kg	< 5.0	--
1,2-Dichloropropane	5.0	ug/kg	< 5.0	--
cis-1,3-Dichloropropene	5.0	ug/kg	< 5.0	--
Trichloroethene	5.0	ug/kg	< 5.0	--
Dibromochloromethane	5.0	ug/kg	< 5.0	--
1,1,2-Trichloroethane	5.0	ug/kg	< 5.0	--
Benzene	5.0	ug/kg	< 5.0	--
2-Chloroethylvinyl ether	10.	ug/kg	< 10.	--
trans-1,3-Dichloropropene	5.0	ug/kg	< 5.0	--
Bromoform	5.0	ug/kg	< 5.0	--
4-Methyl-2-pentanone	20.	ug/kg	< 20.	--
2-Hexanone	20.	ug/kg	< 20.	--
Tetrachloroethene	5.0	ug/kg	< 5.0	--
1,1,2,2-Tetrachloroethane	5.0	ug/kg	< 5.0	--
Toluene	5.0	ug/kg	< 5.0	--
Chlorobenzene	5.0	ug/kg	< 5.0	--
Ethylbenzene	5.0	ug/kg	< 5.0	--
Styrene	5.0	ug/kg	< 5.0	--
Xylenes (total)	5.0	ug/kg	< 5.0	--
1,2-Dichlorobenzene	10.	ug/kg	< 10.	--
1,3-Dichlorobenzene	10.	ug/kg	< 10.	--
1,4-Dichlorobenzene	10.	ug/kg	< 10.	--

NEI/GTEL Wichita, KS
W6120253

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8240B
Matrix: Low Soil

GTEL Sample Number	W6120253-01	W6120253-02	--	--
Client ID	201B01	202B01	--	--
Date Sampled	12/11/96	12/12/96	--	--
Date Analyzed	12/18/96	12/18/96	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:Wet Weight
Percent Solids	--	%	75.0 69.0 -- --

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8240B:

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846. Third Edition including promulgated Update II.

W6120253-01:

Methylene chloride is a common laboratory contaminant.

W6120253-02:

Methylene chloride is a common laboratory contaminant.

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8240B
Matrix: Low Soil

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	--	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	X	--	--
Method Precision	X	--	--
Blank Contamination	X	--	--

Comments:

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8240B
Matrix: Low Soil

Surrogate Results

QC Batch No.	Reference	Sample ID	DCA-D4	TOL-D8	4-BFB
Method: EPA 8240B Acceptability Limits:			70-121%	81-117%	74-121%
121696HP3-1	BL121696HP3	Method blanks low	102.	93.6	102.
121696HP3-2	LS121696HP3	Laboratory control	82.7	98.1	97.6
121696HP3-3	LS0121696HP3	LCS Soil Duplicate	108.	100.	105.
121696HP3-6	MS12025301	Matrix Spike	96.1	103.	103.
121696HP3-7	MD12025301	Matrix Spike Dupli	100.	106.	104.
--	12025301	201B01	108.	102.	108.
--	12025302	202B01	111.	109.	120.

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8240B
Matrix: Low Soil

Method Blank Results

QC Batch No: 121696HP3-1
Date Analyzed: 16-DEC-96

Analyte	Method: EPA 8240B	Concentration: ug/kg
Chloromethane	< 10.0	
Bromomethane	< 10.0	
Vinyl chloride	< 10.0	
Chloroethane	< 10.0	
Methylene chloride	< 10.0	
Acetone	< 20.0	
Carbon disulfide	< 5.00	
1,1-Dichloroethene	< 5.00	
1,1-Dichloroethane	< 5.00	
cis-1,2-Dichloroethene	< 5.00	
trans-1,2-Dichloroethene	< 5.00	
Chloroform	< 5.00	
1,2-Dichloroethane	< 5.00	
2-Butanone	< 20.0	
1,1,1-Trichloroethane	< 5.00	
Carbon tetrachloride	< 5.00	
Vinyl acetate	< 20.0	
Bromodichloromethane	< 5.00	
1,2-Dichloropropane	< 5.00	
cis-1,3-Dichloropropene	< 5.00	
Trichloroethene	< 5.00	
Dibromochloromethane	< 5.00	
1,1,2-Trichloroethane	< 5.00	
Benzene	< 5.00	
2-Chloroethyl vinyl ether	< 10.0	
trans-1,3-Dichloropropene	< 5.00	
Bromoform	< 5.00	
4-Methyl-2-pentanone	< 20.0	
2-Hexanone	< 20.0	
Tetrachloroethene	< 5.00	
1,1,2,2-Tetrachloroethane	< 5.00	
Toluene	< 5.00	
Chlorobenzene	< 5.00	
Ethylbenzene	< 5.00	
Styrene	< 5.00	
Xylenes (Total)	< 5.00	
1,2-Dichlorobenzene	< 10.0	
1,3-Dichlorobenzene	< 10.0	
1,4-Dichlorobenzene	< 10.0	

Notes:

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8240B
Matrix: Low Soil

Matrix Spike(MS) and Matrix Spike Duplicate(MSD) Results

GTEL Sample ID:W6120253-01		MS ID:MS12025301		MSD ID:MD12025301						
Analysis Date: 18-DEC-96		19-DEC-96		19-DEC-96						
Units: ug/kg	Sample	Spikes Added		MS	MS	MSD	MSD	Acceptability Limits		
Analyte	Conc.	MS	MSD	Conc.	% Rec.	Conc.	% Rec.	RPD	RPD	%Rec.
1,1-Dichloroethene	< 5.0 (0.000)	50.0	50.0	47.6	95.2	49.4	98.8	3.70	24	59-172
Trichloroethene	< 5.0 (0.000)	50.0	50.0	52.0	104.	53.7	107.	2.80	22	62-137
Benzene	< 5.0 (0.000)	50.0	50.0	49.3	98.6	53.4	107.	8.20	21	66-142
Toluene	< 5.0 (0.000)	50.0	50.0	52.0	104.	53.1	106.	1.90	21	59-139
Chlorobenzene	< 5.0 (0.000)	50.0	50.0	50.0	100.	49.3	98.6	1.40	21	60-133

Notes:

Values in parentheses in the sample concentration column are used for % recovery calculations.

GTEL Client ID: OTC010TC01
 Login Number: W6120253
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organic
 Method: EPA 8240B
 Matrix: Low Soil

Laboratory Control Sample (LCS) and Laboratory Control Duplicate Results

Analyte	Spike	LCS	LCS	LCS Duplicate	LCS Duplicate	Acceptability Limits		
	Amount	Concentration	Recovery, %	Concentration	Recovery, %	RPD, %	RPD, %	Recovery, %
EPA 8240B	Units: ug/kg	QC Batch:121696HP3-3						
1,1-Dichloroethene	50.0	43.3	86.6	48.7	97.4	11.7	22	59-172%
Trichloroethene	50.0	52.7	105.	51.1	102.	2.90	24	62-137%
Benzene	50.0	56.8	114.	53.2	106.	7.27	21	66-142%
Toluene	50.0	53.2	106.	52.8	106.	0.00	21	59-139%
Chlorobenzene	50.0	51.9	104.	51.5	103.	0.966	21	60-133%

Notes:

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: See Below
Matrix: Solids

	GTEL Sample Number	W6120253-01	W6120253-02	--	--
	Client ID	201B01	202B01	--	--
	Date Sampled	12/11/96	12/12/96	--	--
EPA 6010A	Date Prepared	12/17/96	12/17/96	--	--
EPA 6010A	Date Analyzed	12/18/96	12/18/96	--	--
EPA 6010A	Dilution Factor	1.00	1.00	--	--
EPA 7471A	Date Prepared	12/16/96	12/16/96	--	--
EPA 7471A	Date Analyzed	12/16/96	12/16/96	--	--
EPA 7471A	Dilution Factor	1.00	1.00	--	--

		Reporting					
Analyte		Limit	Units	Concentration:Wet Weight			
Inorganics (MT, WC)							
Antimony	EPA 6010A	20.	mg/kg	< 20.	< 20.	--	--
Arsenic	EPA 6010A	40.	mg/kg	< 40.	< 40.	--	--
Beryllium	EPA 6010A	0.50	mg/kg	< 0.50	< 0.50	--	--
Cadmium	EPA 6010A	2.0	mg/kg	< 2.0	< 2.0	--	--
Chromium	EPA 6010A	3.0	mg/kg	11.	8.6	--	--
Copper	EPA 6010A	2.5	mg/kg	26.	11.	--	--
Lead	EPA 6010A	7.0	mg/kg	53.	12.	--	--
Mercury	EPA 7471A	0.25	mg/kg	< 0.25	< 0.25	--	--
Nickel	EPA 6010A	4.0	mg/kg	14.	10.	--	--
Selenium	EPA 6010A	20.	mg/kg	< 20.	< 20.	--	--
Silver	EPA 6010A	2.0	mg/kg	< 2.0	< 2.0	--	--
Thallium	EPA 6010A	20.	mg/kg	< 20.	< 20.	--	--
Zinc	EPA 6010A	2.0	mg/kg	63.	38.	--	--
Percent Solids	--	%		75.0	69.0	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A:

Digestion by EPA Method 3050A.

EPA 6010A, EPA 7471A:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 2.

Project Number: 1315-269/4A
Project Name: Operational Technologies
4100 NW Loop 410
San Antonio, TX
Work Order Number: W6-12-0253
Date Reported: 12-30-96

QA NONCONFORMANCE SUMMARY

Metals in Soil

- 1.0 Sample Handling
 - 1.1 Sample handling and holding time criteria were not met for zero samples.
- 2.0 Initial Calibration Verification
 - 2.1 The validity for the calibration verification was exceeded for zero samples as shown in Table 2.
- 3.0 Method Blanks
 - 3.1 Zero target elements were found in the method blank as shown in Table 3.
- 4.0 Matrix Spike (MS) Accuracy
 - 4.1 The recovery limits were exceeded in the matrix spike and matrix spike duplicate for two elements as shown in Tables 4A and 4B.
 - 4.2 Recovery limits were exceeded for antimony and silver in the matrix spike sample due to precipitation of the spike in the presence of concentrated acid.
- 5.0 Sample Duplicate Precision
 - 5.1 The maximum percent difference (RPD) was exceeded for two elements in the matrix spike and matrix spike duplicate samples as shown in Tables 4A and 4B.
 - 5.2 The maximum relative percent difference was exceeded for antimony and silver between the matrix spike and matrix spike duplicate samples due to precipitation of the spike in the presence of concentrated acid.
- 6.0 Laboratory Control Sample
 - 6.1 The recovery limits were not met for zero elements for the laboratory control samples as shown in Table 5.

Project Number: 1315-269/4A
Project Name: Operational Technologies
4100 NW Loop 410
San Antonio, TX
Work Order Number: W6-12-0253
Date Reported: 12-30-96

Table 2
INITIAL CALIBRATION VERIFICATION QC CHECK SAMPLE REPORT
Metals in Soil^a

Analyte	Expected Result, mg/L	Observed Result,mg/L	Recovery, %	Acceptability Limits, % ^a
Antimony	1.00	1.02	102	90-110
Arsenic	1.00	0.974	97.4	90-110
Beryllium	1.00	1.03	103	90-110
Cadmium	1.00	1.02	102	90-110
Chromium	1.00	1.02	102	90-110
Copper	1.00	1.02	102	90-110
Lead	1.00	1.03	103	90-110
Mercury	0.00400	0.00400	100	90-110
Nickel	1.00	1.03	103	90-110
Selenium	1.00	1.05	105	90-110
Silver	0.500	0.507	101	90-110
Thallium	1.00	1.07	107	90-110
Zinc	1.00	1.04	104	90-110

^a Acceptability limits as per EPA Contract Laboratory Program

Project Number: 1315-269/4A
Project Name: Operational Technologies
4100 NW Loop 410
San Antonio, TX
Work Order Number: W6-12-0253
Date Reported: 12-30-96

Table 3
BLANK REPORT
Metals in Soil

Analyte	Initial Calibration Blank, mg/L	Preparation Blank, mg/Kg
Antimony	<0.20	<20
Arsenic	<0.40	<40
Beryllium	<0.0050	<0.50
Cadmium	<0.020	<2.0
Chromium	<0.030	<3.0
Copper	<0.025	<2.5
Lead	<0.070	<7.0
Mercury	<0.0025	<0.25
Nickel	<0.040	<4.0
Selenium	<0.20	<20
Silver	<0.020	<2.0
Thallium	<0.20	<20
Zinc	<0.020	<2.0

<# Not detected at the indicated detection limit(#)

Project Number: 1315-269/4A
 Project Name: Operational Technologies
 4100 NW Loop 410
 San Antonio, TX
 Work Order Number: W6-12-0253
 Date Reported: 12-30-96

Table 4A
MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY
Metals in Soil

Sample Spiked: Method 6010A W6120207-01
 Sample Spiked: Method 7471A W6120207-01

Analyte	Spike Added, mg/Kg	Sample Concentration, mg/Kg	MS Concentration, mg/Kg	MS Percent Recovery	Acceptability Limits, % ^a
Antimony	204	<20	13.7	6.70 ^b	80-120
Arsenic	204	<40	183	89.6	80-120
Beryllium	81.6	<0.50	77.5	95.0	80-120
Cadmium	103	<2.0	94.5	91.6	80-120
Chromium	204	14.5	205	93.5	80-120
Copper	204	18.4	218	97.6	80-120
Lead	204	10.3	191	88.6	80-120
Mercury	0.286	<0.25	0.280	98.0	75-125
Nickel	204	15.5	201	91.1	80-120
Selenium	204	<20	179	87.7	80-120
Silver	40.8	<2.0	2.56	6.30 ^b	80-120
Thallium	204	<20	175	85.8	80-120
Zinc	204	38.0	226	92.2	80-120

^a Acceptability limits as per EPA Contract Laboratory Program.

^b Value is outside of acceptability limits.

Project Number: 1315-269/4A
 Project Name: Operational Technologies
 4100 NW Loop 410
 San Antonio, TX
 Work Order Number: W6-12-0253
 Date Reported: 12-30-96

Table 4B
MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY
Metals in Soil

Analyte	Spike Added, mg/Kg	MSD Concentration, mg/Kg	MSD Percent Recovery	RPD %	Acceptability Limits, % ^a
					RPD
Antimony	189	7.97	4.20	45.5	20.0
Arsenic	189	171	90.8	1.35	20.0
Beryllium	75.5	72.1	95.5	0.573	20.0
Cadmium	95.3	87.7	92.0	0.403	20.0
Chromium	189	191	93.8	0.248	20.0
Copper	189	207	99.9	2.36	20.0
Lead	189	180	89.9	1.41	20.0
Mercury	0.290	0.273	94.2	3.97	20.0
Nickel	189	188	91.3	0.238	20.0
Selenium	189	169	89.6	2.14	20.0
Silver	97.7	1.27	3.40	59.9	20.0
Thallium	189	165	87.4	1.86	20.0
Zinc	189	215	93.8	1.69	20.0

^a Acceptability limits as per EPA Contract Laboratory Program.

NA Not applicable; initial sample concentration greater than four times the spike amount.

Project Number: 1315-269/4A
 Project Name: Operational Technologies
 4100 NW Loop 410
 San Antonio, TX
 Work Order Number: W6-12-0253
 Date Reported: 12-30-96

Table 5
LABORATORY CONTROL SAMPLE RESULTS
Metals in Soil

Analyte	Expected Result, mg/Kg	Observed Result, mg/Kg	Recovery, %	Acceptability Limits, % ^a
Antimony	200	187	93.5	80-120
Arsenic	200	180	90.0	80-120
Beryllium	80.0	77.0	96.2	80-120
Cadmium	101	92.4	91.5	80-120
Chromium	200	191	95.5	80-120
Copper	200	194	97.0	80-120
Lead	200	184	92.0	80-120
Mercury	0.333	0.314	94.3	75-125
Nickel	200	188	94.0	80-120
Selenium	200	182	91.0	80-120
Silver	40.0	36.9	92.2	80-120
Thallium	200	183	91.5	80-120
Zinc	200	183	91.5	80-120

^a Acceptability limits established by laboratory practice

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: OTC010TC01

Login Number: W6120253

Project ID (number): 1315-269/4A

Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: See Below

Matrix: Aqueous

	GTEL Sample Number	W6120253-03	W6120253-04	--	--
	Client ID	2-RB01	2-FB01	--	--
	Date Sampled	12/13/96	12/13/96	--	--
EPA 6010A	Date Prepared	12/17/96	12/17/96	--	--
EPA 6010A	Date Analyzed	12/17/96	12/17/96	--	--
EPA 6010A	Dilution Factor	1.00	1.00	--	--
EPA 7041	Date Prepared	12/16/96	12/16/96	--	--
EPA 7041	Date Analyzed	12/18/96	12/18/96	--	--
EPA 7041	Dilution Factor	1.00	1.00	--	--
EPA 7060A	Date Prepared	12/18/96	12/18/96	--	--
EPA 7060A	Date Analyzed	12/18/96	12/18/96	--	--
EPA 7060A	Dilution Factor	1.00	1.00	--	--
EPA 7421	Date Prepared	12/16/96	12/16/96	--	--
EPA 7421	Date Analyzed	12/17/96	12/17/96	--	--
EPA 7421	Dilution Factor	1.00	1.00	--	--
EPA 7470A	Date Prepared	12/18/96	12/18/96	--	--
EPA 7470A	Date Analyzed	12/18/96	12/18/96	--	--
EPA 7470A	Dilution Factor	2.00	2.00	--	--
EPA 7740	Date Prepared	12/18/96	12/18/96	--	--
EPA 7740	Date Analyzed	12/18/96	12/18/96	--	--
EPA 7740	Dilution Factor	1.00	1.00	--	--
EPA 7841	Date Prepared	12/16/96	12/16/96	--	--
EPA 7841	Date Analyzed	12/18/96	12/18/96	--	--
EPA 7841	Dilution Factor	1.00	1.00	--	--

		Reporting			
Analyte		Limit	Units	Concentration:	
Inorganics (MT, WC)					
Antimony	EPA 7041	10.	ug/L	< 10.	--
Arsenic	EPA 7060A	10.	ug/L	< 10.	--
Beryllium	EPA 6010A	5.0	ug/L	< 5.0	--
Cadmium	EPA 6010A	20.	ug/L	< 20.	--
Chromium	EPA 6010A	30.	ug/L	< 30.	--
Copper	EPA 6010A	25.	ug/L	< 25.	--
Lead	EPA 7421	4.0	ug/L	< 4.0	--
Mercury	EPA 7470A	0.50	ug/L	< 1.0	--
Nickel	EPA 6010A	40.	ug/L	< 40.	--
Selenium	EPA 7740	10.	ug/L	< 10.	--
Silver	EPA 6010A	20.	ug/L	< 20.	--
Thallium	EPA 7841	10.	ug/L	< 10.	--
Zinc	EPA 6010A	20.	ug/L	< 20.	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W6120253

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: See Below
Matrix: Aqueous

	GTEL Sample Number	W6120253-03	W6120253-04	--	--
	Client ID	2-RB01	2-FB01	--	--
	Date Sampled	12/13/96	12/13/96	--	--
EPA 6010A	Date Prepared	12/17/96	12/17/96	--	--
EPA 6010A	Date Analyzed	12/17/96	12/17/96	--	--
EPA 6010A	Dilution Factor	1.00	1.00	--	--
EPA 7041	Date Prepared	12/16/96	12/16/96	--	--
EPA 7041	Date Analyzed	12/18/96	12/18/96	--	--
EPA 7041	Dilution Factor	1.00	1.00	--	--
EPA 7060A	Date Prepared	12/18/96	12/18/96	--	--
EPA 7060A	Date Analyzed	12/18/96	12/18/96	--	--
EPA 7060A	Dilution Factor	1.00	1.00	--	--
EPA 7421	Date Prepared	12/16/96	12/16/96	--	--
EPA 7421	Date Analyzed	12/17/96	12/17/96	--	--
EPA 7421	Dilution Factor	1.00	1.00	--	--
EPA 7470A	Date Prepared	12/18/96	12/18/96	--	--
EPA 7470A	Date Analyzed	12/18/96	12/18/96	--	--
EPA 7470A	Dilution Factor	2.00	2.00	--	--
EPA 7740	Date Prepared	12/18/96	12/18/96	--	--
EPA 7740	Date Analyzed	12/18/96	12/18/96	--	--
EPA 7740	Dilution Factor	1.00	1.00	--	--
EPA 7841	Date Prepared	12/16/96	12/16/96	--	--
EPA 7841	Date Analyzed	12/18/96	12/18/96	--	--
EPA 7841	Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:
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EPA 7421, EPA 7841:

Digestion for Total Metals by EPA Method 3020A.
Digestion for Total Metals by EPA Method 3020A.

EPA 7060A, EPA 7740:

Digestion by EPA Method 7060.

EPA 7470A:

Digestion is method specific.

EPA 6010A, EPA 7041, EPA 7060A, EPA 7421, EPA 7470A, EPA 7740, EPA 7841:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 2.

Project ID (Number): 1315-269/4A
Project ID (Name): Operational Technologies
4100 NW Loop 410
San Antonio, TX
Work Order Number: W6-12-0253
Date Reported: 12-30-96

QA NONCONFORMANCE SUMMARY

Metals in Water

1.0 Sample Handling

- 1.1 Sample handling and holding time criteria were not met for zero samples.

2.0 Initial Calibration Verification

- 2.1 The validity for the calibration verification was exceeded for zero samples as shown in Table 2.

3.0 Method Blanks

- 3.1 Zero target elements were found in the method blank as shown in Table 3.

4.0 Matrix Spike (MS) Accuracy

- 4.1 The recovery limits were exceeded in the matrix spike and matrix spike duplicate for one element as shown in Tables 4A.
- 4.2 Recovery limits were exceeded for silver in the matrix spike sample due to precipitation of the spike in the presence of concentrated acid.

5.0 Sample Duplicate Precision

- 5.1 The maximum percent difference (RPD) was exceeded for zero elements in the matrix spike and matrix spike duplicate samples as shown in Tables 4A and 4B.

6.0 Laboratory Control Sample

- 6.1 The recovery limits were not met for zero elements for the laboratory control samples as shown in Table 5.

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Project ID (Name): Operational Technologies
4100 NW Loop 410
San Antonio, TX
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Date Reported: 12-30-96

Table 2
INITIAL CALIBRATION VERIFICATION QC CHECK SAMPLE REPORT
Metals in Water^a

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	39.4	98.5	90-110
Arsenic	40.0	41.8	104	90-110
Beryllium	1000	1030	103	90-110
Cadmium	1000	1020	102	90-110
Chromium	1000	1020	102	90-110
Copper	1000	1020	102	90-110
Lead	20.0	21.6	108	90-110
Mercury	4.00	4.13	103	90-110
Nickel	1000	1030	103	90-110
Selenium	40.0	41.5	104	90-110
Silver	500	507	101	90-110
Thallium	20.0	21.3	106	90-110
Zinc	1000	1040	104	90-110

^a Acceptability limits as per EPA Contract Laboratory Program

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Table 3
BLANK REPORT
Metals in Water

Analyte	Initial Calibration Blank, ug/L	Preparation Blank, ug/L
Antimony	< 10	< 10
Arsenic	< 10	< 10
Beryllium	< 5.0	< 5.0
Cadmium	< 20	< 20
Chromium	< 30	< 30
Copper	< 25	< 25
Lead	< 4.0	< 4.0
Mercury	< 1.0	< 1.0
Nickel	< 40	< 40
Selenium	< 10	< 10
Silver	< 20	< 20
Thallium	< 10	< 10
Zinc	< 20	< 20

<# Not detected at the indicated detection limit(#)

Project ID (Number): 1315-269/4A
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Table 4A
MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY
Metals in Water

Sample Spiked: Method 6010A W6120253-03
 Sample Spiked: Method 7041 W6120253-03
 Sample Spiked: Method 7060A W6120253-03
 Sample Spiked: Method 7421 W6120253-03
 Sample Spiked: Method 7470A W6120253-04
 Sample Spiked: Method 7740 W6120253-03
 Sample Spiked: Method 7841 W6120253-03

Analyte	Spike Added, ug/L	Sample Concentration, ug/L	MS Concentration, ug/L	MS Percent Recovery	Acceptability Limits, % ^a
Antimony	40.0	< 10	42.3	106	75-125
Arsenic	40.0	< 10	41.3	103	75-125
Beryllium	800	< 5.0	848	106	80-120
Cadmium	1010	< 20	1070	106	80-120
Chromium	2000	< 30	2120	106	80-120
Copper	2000	< 25	2150	107	80-120
Lead	20.0	< 4.0	20.7	103	75-125
Mercury	2.00	< 1.0	2.18	109	75-125
Nickel	2000	< 40	2130	107	80-120
Selenium	40.0	< 10	39.1	97.8	75-125
Silver	400	< 20	261	65.3 ^b	80-120
Thallium	20.0	< 10	21.1	106	75-125
Zinc	2000	< 20	2160	108	80-120

^a Acceptability limits as per EPA Contract Laboratory Program.

^b Value is outside of acceptability limits.

NA Not applicable; initial sample concentration greater than four times the spike amount.

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Table 4B
MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY
Metals in Water

Analyte	Spike Added, ug/L	MSD Concentration, ug/L	MSD Percent Recovery	RPD %	Acceptability Limits, % ^a
					RPD
Antimony	40.0	45.4	114	7.07	20.0
Arsenic	40.0	40.2	100	2.70	20.0
Beryllium	800	854	107	0.740	20.0
Cadmium	1010	1070	106	0.327	20.0
Chromium	2000	2140	107	0.833	20.0
Copper	2000	2160	108	0.406	20.0
Lead	20.0	20.6	103	0.630	20.0
Mercury	2.00	2.22	111	1.82	20.0
Nickel	2000	2140	107	0.258	20.0
Selenium	40.0	38.8	97.0	0.770	20.0
Silver	400	230	57.4	12.9	20.0
Thallium	20.0	21.0	105	0.475	20.0
Zinc	2000	2170	108	0.282	20.0

^a Acceptability limits as per EPA Contract Laboratory Program.

NA Not applicable; initial sample concentration greater than four times the spike amount.

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San Antonio, TX
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Table 5
LABORATORY CONTROL SAMPLE RESULTS
Metals in Water

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	39.2	98.0	75-125
Arsenic	40.0	41.2	103	75-125
Beryllium	800	842	105	80-120
Cadmium	1010	1050	104	80-120
Chromium	2000	2100	105	80-120
Copper	2000	2110	106	80-120
Lead	20.0	20.1	101	75-125
Mercury	2.00	2.16	108	75-125
Nickel	2000	2100	105	80-120
Selenium	40.0	37.5	93.8	75-125
Silver	400	409	102	80-120
Thallium	20.0	21.1	106	80-120
Zinc	2000	2090	104	80-120

^a Acceptability limits established by laboratory practice



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Chain of Custody Record

page #:

1 of 1

Client Name: Operational Technologies Corp.
Address: 4100 NW Loop 40, Ste 230
San Antonio, TX 78229
Project Manager: Kathryn Pritchett
Phone: (210) 731-0000 X 207 FAX (210) 731-0041
Project Name: Capital EE/CA
Project Number: 1315-269/4A
P.O. #: USEPA III
Analytical Protocol: Kathryn Pritchett
Deliverables: Kathryn Pritchett
Sampled By: Kathryn Pritchett

Analysis Requested

No. of Containers	Analysis Requested
50L	VCs (SW240)
50L	PPMs (SW606/700)
50L	PPMs (SW606/700)
50L	VCs (SW801/8020)
50L	PPMs (SW606/700)
50L	VCs (SW606/700)

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Description
01	201B01	12/14/08	1508	MW2021B-0-0.5
02	202B01	12/14/08	1410	MW2022B-0-0.5
03	2-RB01	12/14/08	830	2-RB01
04	2-FB01	12/13/08	1045	2-FB01
05	2-TB01	12/13/08		2-TB01

Relinquished by:	Date / Time	Received by:	Date / Time
Kathryn Pritchett	12/14/08		
Print Name:		Print Name:	
Relinquished by:		Received by:	
Print Name:		Print Name:	
Relinquished by:		Received by:	
Print Name:		Print Name:	
Relinquished by:		Received by:	
Print Name:		Print Name:	

Special Instructions: Note: Second confirmation on VDLs analyzed
Sample 201B01 includes ms/msd
Sample 202B01 includes duplicate (separately analyzed)
14 Ave. Environmental

Login #: _____
Ship to: _____
Nyttest Environmental Inc.
60 Seaview Blvd
Port Washington N.Y. 11050
Attn.: Sample Control
Date Shipped: _____
Carrier: _____
Air Bill #: _____
Cooler #: _____
C of C #: _____
SDG #: _____
NEI QT #: _____

Comments:
ms/msd alab-
Duplicate sample
equipment inaccurate
field blank
Trip blank

Lab Use Only
Custody Seals: Intact _____ Broken _____ Absent _____
Sample Rec'd in Good Condition?: Y N
Sample Temperature: 20 Degrees Celsius
INSPECTED BY: _____
COMMENTS: _____